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FOREST SERVICE BULLETIN

Vol. 26 No. 1
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1942

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U.S. Department of Agriculture

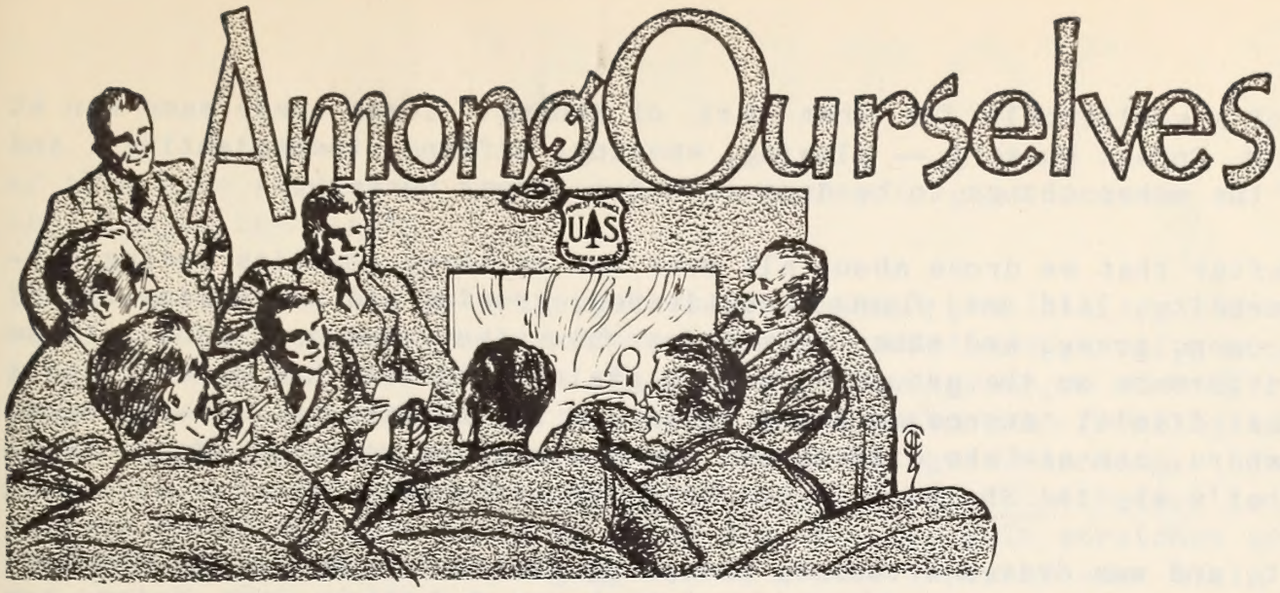
"The future of the entire civilized world is bound up in the success of our lands and our forests to produce the vital foods and the vital materials that will insure the efficiency of the industrial workers and the fighting forces that are defending freedom."

-- Secretary of Agriculture Claude R. Wickard

UNITED STATES DEPARTMENT OF AGRICULTURE

Forest Service

(Confidential - Service)



I SAW THE SHELTERBELT

By Jno. D. Guthrie, CCC, Washington Office

En route to a Region 3 inspection trip last June I spent a day in Kansas looking over a part of the Shelterbelt. You know, the Shelterbelt that a few years ago quite a few high-brow foresters said couldn't be done, and was a cockeyed idea anyway? Well, I saw it, or a part of it last June. It was very much of a reality last June. The strips or belts didn't all run due NE-SW, or vice versa (remember those 1935 tilted gridiron diagrams?), they did not all have the same number of tree rows, nor were there exactly the same tree species in each separate belt. They were not confined to just one side or two sides of a man's farm. In some cases only one side of the 40 or 160 had a belt, in some other cases three sides had belts. And I saw belts with only 7 rows of trees, I saw some with 17 rows. I saw some nicely cultivated between rows, some entirely clean of weeds, others pretty weedy, depending on the thriftiness, energy, and good sense of the farmer. I saw new belts -- trees only a few feet high, and then I saw belts 6 years old with some cottonwoods 35 feet high with the start of a forest floor beneath. I saw a lot of belts in parts of 2 or 3 counties, all in one day. All that I saw were healthy looking, well laid out, and growing; they were all going concerns. It was no place for doubting-Thomas Foresters.

This part of Kansas is pretty near the Dust Bowl. Though the Middle West (and Southwest too) had had a lot of rain, and all farm roads had water puddles in them, you could see across any plowed field or broken farm land a cloud of thin dust rising. Rising and being blown somewhere else because the wind was blowing all the time; at least it blew all day the day I was there. And I realized I was fairly near the edge of the Dust Bowl; I also realized that anything that checked or slowed down that wind was a practical blessing.

I saw the storage sheds for tools, trucks, seed, seed hullers, and fan mills, etc., these store houses being a part of the State Fair buildings turned over to the Forest Service (except for State Fair week). I saw the truck loads of WPA workers -- and they looked like, they acted like, and worked like workers -- they were workers. They were mostly of the local farm population and they seemed to me as if you wouldn't have to try to tell *them* anything about the

benefits of a shelterbelt for that part of Kansas. I saw these same men at work in the Forest Nursery,-- plowing, weeding, lifting, transplanting, and doing all the other things to be done around a forest nursery.

And then after that we drove about all over two or three counties seeing actual Shelterbelts, laid out, planted, cultivated, growing and sheltering fields of grain, corn, grass, and other farm crops from that constant wind. I saw the big difference on the ground between a grain field that had a shelterbelt and one that didn't. Anyone not blind could see the difference. The farmers, the landowners, can see the difference; there's nothing cockeyed about it to them -- that's why the Shelterbelt has been such a success.

I saw, met, and was driven around by the young foresters running the Shelterbelt in that part of Kansas. They seemed to know what they were doing, how they were doing it, and why they were doing it. They struck me as a mighty practical bunch of foresters, practical, and yet with imagination, enthusiasm, and esprit de corps. They weren't doing any swivel-chair theorizing about land utilization, land values, land tenure, nor volume tables, chromosome counts, nor cytological aspects of this or that. These young foresters had their forestry feet on the ground, on the fine silty soil of Kansas, not under an office table, nor cocked on an office desk. They were dealing every day with people who also kept *their* feet on the ground, the farmers. The forestry these Shelterbelters are doing is simple you say, -- yes, but it's basic, it's practical, it's dealing with the two fundamentals of all forestry -- trees and people. These Shelterbelters are forestry pioneers; they are doing grass-roots forestry.

The thought kept coming back to me that these young Shelterbelt foresters are doing a job which most of us old-timers did and were proud to do in the early days -- taking forestry to the people (and it is still true that most people think of forestry as planting trees) -- and doing it with a sincerity, a heartiness, a thoroughness, and an enthusiasm that was uplifting -- and catching! And then I wondered if there were any connection between the job they were doing and their enthusiasm.

Maybe if most of us foresters just planted more trees every year and did less theorizing about forestry refinements and techniques, we might get farther, and get more enthusiasm and pleasure out of our living and our profession, than we do now.

I know I was refreshed, yes rejuvenated, and really uplifted, by seeing on the Kansas ground the Shelterbelt actually going ahead. No brainstorm, no cockeyed idea, no impractical dream, but trees living, growing, and doing good to people through years of drouth and almost constant wind. There isn't any theory here; it's a very tangible reality.

And then I wondered how many foresters here in America, federal, state, or private, have actually *seen* the Shelterbelt. I don't know how many of these foresters cross the United States each year, or two or three or four times each year. But every time they cross, they cross the Shelterbelt. How many

of them have stopped en route even for one day to get a look-see at "the trees that temper the wind"?

I was tempted to say "there ought to be a law," but I'll say there ought to be a rule that at least every federal forester must stop, coming or going, and actually see the Shelterbelt. That should be easy -- no fiscal regulation would be bent or broken by so doing -- and maybe some forestry inspiration might be absorbed, unconsciously, in the stopping and looking. It ought to be a rule for federal foresters, and it ought to be an invitation to state and private foresters from us to stop and see it. The Belt stretches across five and a half States, so arranging travel routes (whether via train or auto) should present no difficulties. Why not get out a simple "Shelterbelt Travel Map" for foresters -- showing which highways, which transcontinental railroads, and what towns or cities best contact the Belts. Federal foresters are still coming East and going West, and a lot of private foresters travel, and the chances are that the next State Foresters meeting will be held on the Pacific Coast.

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UNIFORMS - NOW!

If you are looking for broader opportunity to spread the Forest Service gospel -- and in these days what forest officer is not? -- then it's best to wear your uniform, preferably spic and span like a soldier's, while traveling in the field.

That's the conviction, at any rate, of H. N. Wheeler, Washington Forest Service lecturer. Recently returned from trips to the Deep South and the Far West, the veteran forestry evangelist reports that people in general seem far more "uniform conscious" now than in ordinary times -- probably because of the defense expansion of the armed forces -- and that on his recent trips more than the usual number of travelers approached him with queries as to what service he was in. Many of these approaches gave him good chances to "inform" strangers bound for diverse parts of the country.

"Personally, I have always favored wearing the uniform on tour," says Wheeler. "In addition to everyday curious citizens, local foresters, lumbermen and others in forest industries, and State and Federal officials are often prompted to speak with you once the uniform tells them who you are. There's no place where talking to a stranger is simpler and easier than in the course of a long train ride, and the result frequently is an interchange of information and judgments of value both to you and to the other fellow.

Wheeler likes to think that his chance "forestry lectures" to inquiring strangers met in his travels have reached many a man who under ordinary circumstances couldn't be herded into attending a formal lecture on forestry by a fleet of bulldozers.

TOTEMS

OLD GUARD SERVICEMAN

Forty years is a long time in the lifetime of any man. For forty years my old friend Joe Santucci has never once been late to his work in the Forest Service. Joe retires on January 1, 1942 -- thirty years after my own connection with the Service was severed. We were friends then; we are friends still. We have never lost touch.

On the payroll or off the payroll Joe belongs to the Forest Service. We are proud of his lifetime of faithful work for his country.

I agree down to the ground with Capt. Eldredge in a recent letter: "I know that the Forest Service will continue on its course without you, but to old-timers like me some of its flavor will be lost when you leave us.

"You have every reason to be proud, Joe, of your forty years of cheerful, loyal and efficient service. You have seen our organization grow from infancy to maturity and have had your hand and your heart in all of its battles. As long as you live, you will never, in your mind, be able to separate yourself from the service and the same may be said for the men with whom you work."

When Joe came into the old Bureau of Forestry in 1902 there was only one other messenger, Turner Speller, another good man and friend of mine whom I shall never forget. The Bureau then occupied three floors of the Atlantic Building. How much office space in Washington and all over the Nation it occupies now I can only guess.

In 1908 Joe was sent to Ogden to open up a Supply Depot for District 4. Then he opened another Supply Depot at Albuquerque, and after seven years in New Mexico was transferred to Washington, where he has been ever since.

In 1905 Joe ran his famous Forestry Cafe on the fourth floor of the Atlantic Building and ran it with this equally famous motto on the wall, "As we journey through life let us live by the way." But when the Student Assistants who kept the cafe going left for Texas with John Foley for the Kirby Lumber Company working plan, the Forestry Cafe closed.

Joe has served under six Chief Foresters -- served in the spirit of the old days. For there was a spirit in the Service then of which we were, and had a right to be, immensely proud. And we are proud that, while the old days have gone, the spirit has not disappeared.

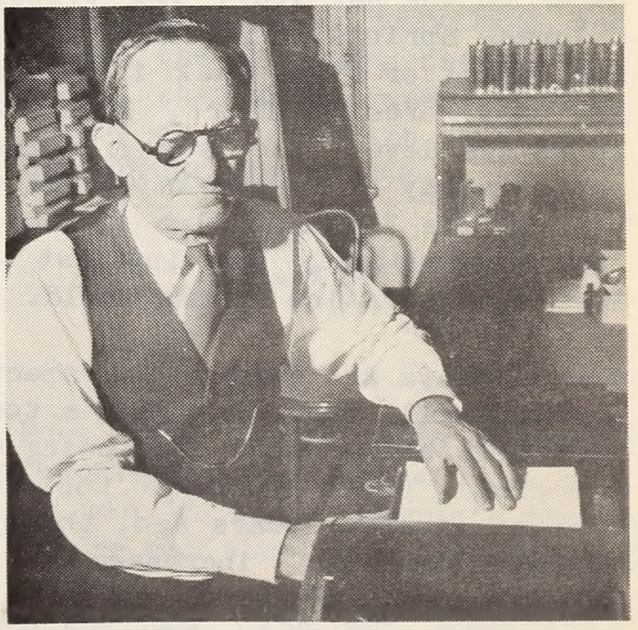
"They were certainly wonderful days," says Joe, and we veterans who served in them agree with Joe. Joe says (and I'd give a leg to do it with him), "I would love to start over again and go through it all once more. The Service was just one happy family."

There never was a finer, more devoted, more effective body of men and women in any work, any time, anywhere, since Noah came out of the Ark, or before, in the Government or outside, than the men and women of the United States Forest Service.

I have said it before, I say it again, and I shall keep on saying it so long as I am concerned with public affairs, and after.

Those were the days when work often began before and ended long after the formal office hours. "I stayed with you till you signed the letters and then went out and mailed them for you," Joe says, and tells the truth. Often and often it was after six o'clock.

Well do I remember that Joe used to bring me my lunch on the many days I was too busy to leave the office; and he recalls that I used to say, "Joe, you sure know how to pick a good lunch." And he did.



When Jim Garfield and I played tennis at the White House, it was Joe who often carried over our rackets. And Joe would sit and watch the game, and he is proud that T. R. would pat him on the shoulder and call him Joe. And to that pride he has a right as nobody can deny.

Joe served in the Photographic Gallery and at the photostat machine before he took charge of the old mimeographing machine, made in 1918, which he still calls his buddy.

In the midst of his deep regret at leaving the work he loves and to which he has given his life, Joe has this great satisfaction -- that, as he says: "There's still a Joe Santucci in the Service." Joe's son takes his place at the mimeographing machine, and Joe is very happy about that.

Through the generations to come may there always be a Joe Santucci among the members of the Forest Service.

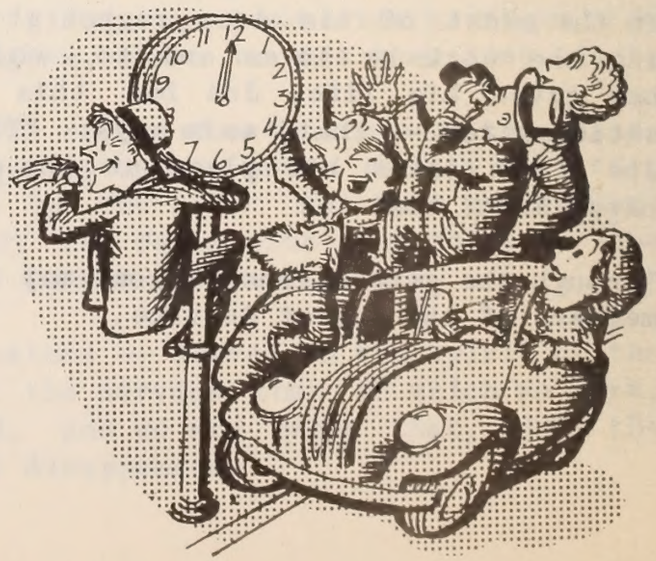
By Walter A. Wood, Executive Assistant, Pike National Forest

Each New Year's Eve, when the ringing of bells and blowing of whistles usher in the New Year, the people of Colorado Springs raise their eyes to the summit of Pikes Peak in the Pike National Forest. There, 14,110 feet above sea level, they see a magnificent display of fireworks -- the salute of the "AdAmAn" Club to the New Year, undoubtedly the loftiest New Year's celebration in the world.

The displays are varied and spectacular, usually more than half a ton of fireworks being used. Beginning with the club's first mountain top celebration nineteen years ago, the pyrotechnic show has increased in size and beauty. On the first trip the five charter members of the club carried the fireworks up the Peak on their backs, making the trip in one day. Now, the fireworks are sent up sometime before, on the last Cog Road train of the year, and the celebrating members take two days for the climb instead of one.

The "AdAmAn" Club of Colorado Springs, Colorado, came into being in 1922. Two brothers, Fred and Ed Morath, thought a New Year's trip to the summit of Pikes Peak would be quite a stunt and they talked it over with three friends, Willis Magee, Fred Barr, and H. L. Standley. The idea appealed to the trio and the five men formed a club to make the New Year's climb an annual event. Since that time, members of the club have scaled the mountain each year and have set off fireworks on the lofty summit each New Year's Eve.

The "AdAmAn" Club has a unique set of rules and regulations. There are no dues and one new member is elected each year. No women are admitted. From this method of selecting its members the club derives its name, adding a man each year. All members retain their membership regardless of change of residence. A prospective member usually makes a trip or two as



a guest of the club. The membership now includes 22 men, mostly business and professional men from Denver and Colorado Springs. Secretary of the club, H. L. Standley, is one of the five charter members. An expert photographer and mountaineer, Standley has climbed every peak over 14,000 feet in the Rocky Mountains, and his pictures of mountains have also appeared in the rotogravure sections of practically every newspaper in the country.

Members are not required to make the trip each year and the entire membership seldom does. However, from six to twelve guests are taken on each trip nowadays, making quite a large party. The group usually leaves Manitou Springs at the foot of the Peak on the 30th of December between 10 and 11 a.m. Packing their food supplies they reach Barr Camp, approximately five miles from the summit, late in the afternoon. Barr Camp on the slopes of the Peak, is a favorite spot for tourists traveling Barr trail. Here, during the summer season, burrows may be hired for trips to the top, or over surrounding trails.

The night of the first day out is spent at the camp and the next morning around nine o'clock the party proceeds to the top, reaching the Summit House early in the afternoon. There the fireworks are unpacked and arrangements made for the midnight display. From Barr Camp to the top, the trip is made either over the Barr trail or on the Cog Road right-of-way, depending on the depth of the snow. The Cog Road right-of-way is usually more free from drifts than the trail. The trip is not hazardous and neither snowshoes nor skis have ever been needed.

Following the display, the members of the party, after putting things in order and closing the Summit House, start the descent to Manitou Springs, leaving the summit between one and two a.m. and arriving in town about sunrise.

The New Year's Eve fireworks display from the top of Pikes Peak has become a tradition in the Pikes Peak region and surrounding country, and on a clear night can be seen for miles on the plains and from many mountain towns and hamlets. Many people in these areas, following the old custom of seeing the old year out and the new year in, watch for the Pikes Peak display as a traditional feature.

The fireworks are provided by local contributions and by travelers who have seen the display, caught the spirit of the thing, and who each year send a contribution in support of this unique observance.

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Dr. Mees (head of Eastman's research laboratories) insists that his research men be given complete freedom. "The man who knows most about any project," he says, "is the man doing the job. The man immediately above him knows a little less, the research director considerably less. By the time you get up to a committee of vice-presidents they know precisely nothing."

--*Eastman's Magic Wand of Research,* "The Reader's Digest" for September-

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ATTENTIONS TO THE PRESS

By Dana Parkinson, Chief, I & E, Washington Office

I have been impressed by the large number of news breaks occurring on national forests which have been featured by front-page dispatches, newsreels, and radio news casts, but which show little or no recognition of the forest or of the part played by the Forest Service.

Several recent airplane crashes on western forests are cases in point, and the Pamela Hollingworth search on the White Mountain National Forest was one of the outstanding news stories of the year.

It is realized that in such cases our first consideration is the job at hand -- the saving of life or property. At the same time, it would seem worth while to see that press relations during national forest emergencies are given due consideration because:

1. Direct contacts with the working press on information they are particularly interested in should interest them in other forestry information which should be given public notice.

2. It would help the public appreciate the extent of the national forest system and our participation in public emergencies.

3. Both directly and indirectly our objectives can be worked into spot news stories which are read by everyone in contrast to formal news releases which have relatively less appeal.

4. Representatives of the press, radio, and newsreels while covering one incident in a national forest naturally are looking for other opportunities. A forest officer alert to such opportunities can follow through much more effectively if a friendly foundation has been established.

In the case of the Pamela Hollingworth search, the White Mountain made special arrangements to take care of press representatives assigned to cover the story. In the light of his experiences Supervisor Graham has made some suggestions as to relationship between the Forest Service and the press which are worth passing on. Graham recommends:

1. Designation of press headquarters for the use of reporters.

2. Designation of a qualified press representative from the Forest Service (if conditions justify make that his only assignment).

3. Arrangement of conferences for the press with the head of the searching party at intervals depending on the papers' deadlines.

Graham further suggests that item 3 be extended to include provision for odd-hour conferences of individual reporters with forest officers where important inquiries are involved and circumstances will permit. However, the liaison officer suggested under item 2 should be charged with keeping such irregular interruptions at a minimum so as to permit efficient functioning of all other officers on the emergency at hand. The liaison officer should also be expected to make sure the reporters are fully and correctly informed as to personnel and locations involved and given all Forest Service background data pertinent to the story.

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IN THE MILL POND

Mr. Harold L. Price, in the Land Policy Division of the Office of the Solicitor writes: "The October, 1941, issue of 'Forest Service Bulletin' contained an item commenting on the injunction suit brought by the Smoky Hill Soil Erosion District, in Colorado, to enjoin a violation of a soil conservation ordinance adopted by the district. The item pointed out that, although the Colorado Court upheld the constitutionality of the State Soil Conservation Act, it did not rule directly on the validity of the ordinance, and that the latter issue was set for trial in 'July 1942.' You will no doubt be interested in knowing that the correct date set for the trial was July 2, 1941, that the case was tried on that date, and resulted in a decree by the Court upholding the validity of the ordinance and permanently enjoining its future violation by the defendants."

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Commenting on A. R. Spillers' article in the Service Bulletin of June 9, J. H. Stone of State and Private Forestry, Region 9, writes:

> **Mr. Spillers does a service for the profession when he points out the need for optimism and belief on the part of foresters in the possibilities of forestry. Let us... find the answer for the private owner.**

FAR "SEE" ON THE SHASTA

As the sun rolled up the eastern hills one morning last fall, Harry Churchman rolled out of bed, stretched and looked over the surrounding country from Bonanza King Lookout. After checking the territory below his lookout for that telltale trailer of smoke and finding none, Harry checked into the dispatcher with the criptic but ever pleasant "OK."

Now, Harry is a person who likes to watch the sun climb to its zenith, so Harry faced the east and there in the rays of the sun a tall plume of smoke was showing. Taking a shot at it, Harry began to check on his map to check the accurate location. He looked over the Sacramento divide -- but the smoke was beyond that ridge. His line went over North Fork Lookout, but the smoke was still farther east -- on past Chalk Mountain, which rears its head above Big Bend, on past Bunchgrass, past Bald Mountain, on the Lassen. Then Harry put his finger on the map and said, "It is there." Calling the dispatcher, Harry proudly reported his find.

Over on the Pit District the phone rang, and on answering, Dispatcher Spangler received the report from the dispatcher at Trinity Center, "Bonanza King reports a smoke south of Big Valley Mountain, reading 99-3/4 degrees." Dazed from that report, Spangler swung over to the Hat Creek line, checked with the Lassen Forest Lookout, and to his relief came these words, "Oh! that is just the Little Valley Mill."

Why is all this written about one plume of smoke? Harry Churchman was looking at a smoke 78 miles from his station over the Sacremento, McCloud and Pit rivers, traversing four Ranger Districts on the Shasta Forest, and two on the Lassen Forest, and accurately placing the smoke on the Bogard District of the Lassen.

-- M. O. Adams, *"California Ranger,"* R-5

TREES A BACKLOG IN THE PLAINS

Carl Nickel, son of a Nebraska pioneer, knows what trees can mean to a Plains farmer. His father settled on a farm south of Kearney, Nebraska, in 1879.

In 1880 or 1881 the father planted 15 acres of cottonwoods. In 1909 the father cut 15,000 board feet of lumber from the grove, all of which was used in construction of buildings on the farm.

Carl Nickel, the son, has not bought any coal in the last 10 years, and in addition the woodlot has supplied three other families (relatives) with fuel. Since the fall of 1939 he has sold $300 worth of fuel wood from the grove. This means something in meeting taxes and other expenses.

He has a 1940 livestock protection belt and two other shelterbelts on the farm now. Needless to say, these belts show meticulous care and attention. He is building again for the future. Incidentally, his opinion of people who do not take care of their belts is rather low.

Paul H. Roberts, *"Plains Forester,"* PSFP

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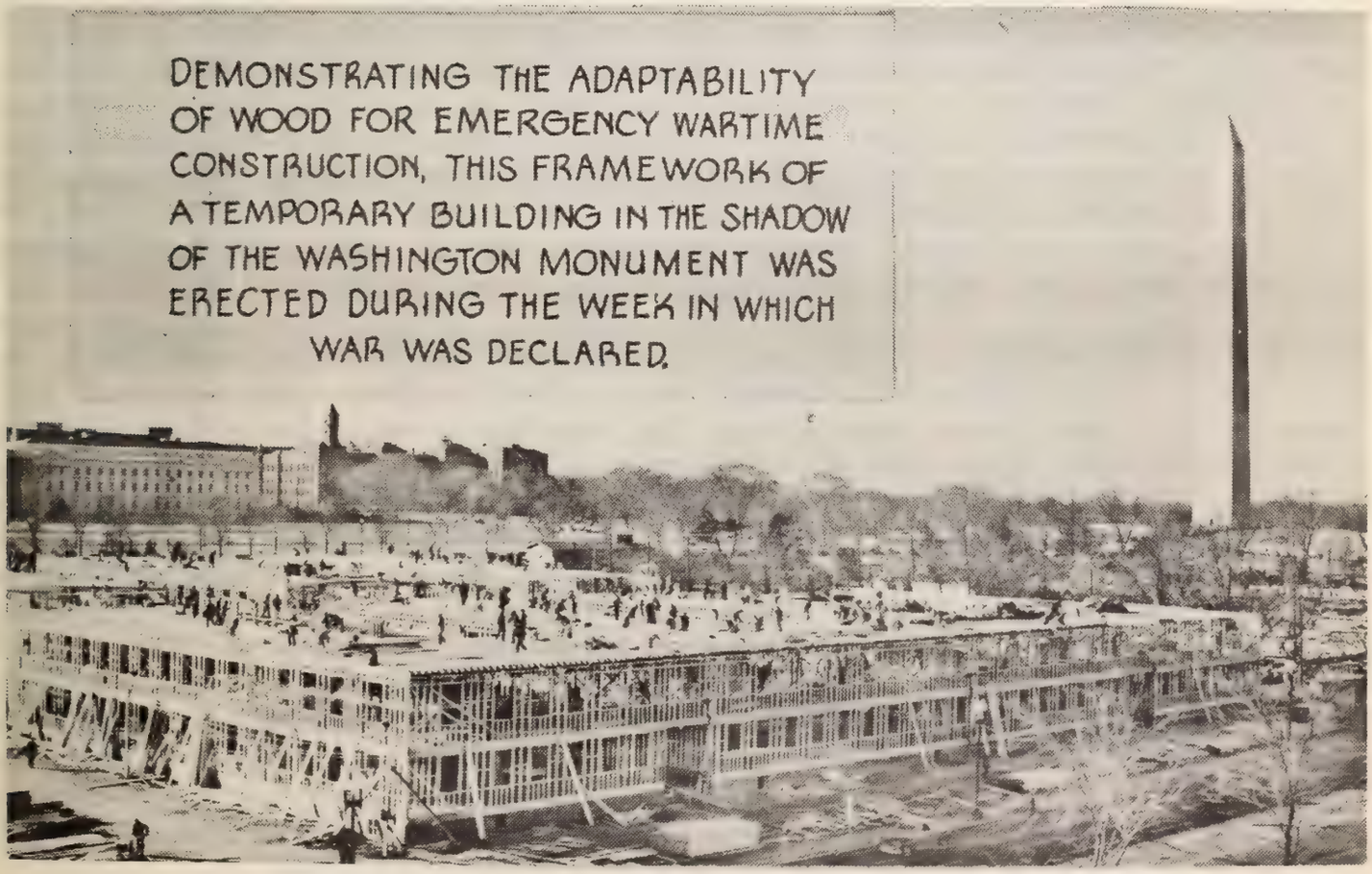
DEMONSTRATING THE ADAPTABILITY OF WOOD FOR EMERGENCY WARTIME CONSTRUCTION, THIS FRAMEWORK OF A TEMPORARY BUILDING IN THE SHADOW OF THE WASHINGTON MONUMENT WAS ERECTED DURING THE WEEK IN WHICH WAR WAS DECLARED.

2,750,000 BD. FT. OF LUMBER, INCLUDING 400,000 BD. FT. OF OAK FLOORING, WAS USED IN THIS BUILDING AND THE ADJACENT STRUCTURE BUILT AT A COST OF $1,725,000. LUMBER WAS USED THROUGHOUT, EXCEPT ASBESTOS BOARD ON THE OUTSIDE AND GYPSUM BOARD ON THE INSIDE.

THOSE MIGHTY LITTLE THINGS

By Kenneth P. Davis, Forest Management Research, Washington Office

At a recent lecture to supervisory men of the Department of Agriculture, Mr. Appley, special assistant on management to the Secretary of War, defined supervision very simply yet deeply as getting the other fellow to do what he ought to do and in general knows he ought to do. Basically, a problem of working with people.

This implied gap between knowing and doing could be definitely felt as an undercurrent at the three-day October School of Philosophy held in Washington, sponsored by the Washington Office Clerical Training Committee. At the afternoon small-group meetings much of the discussion naturally revolved around workers' individual needs and problems. Large, abstract ideas and principles, no matter how fine and generally accepted, did not satisfy; you couldn't feel them. I believe what most really wanted was simple human recognition as individuals, and evidence of a genuine interest on the part of the boss in making the employee feel he or she has a real stake and part in the job. Few people are mind readers.

Here is where the little things come in. One can and must think in large terms in supervision, but in the main expression must be in little things. The boss may be full of large ideas, a keenly interested student of supervision. In fact, he may be so filled with the supervisory problems of the Forest Service, thinking so hard about what ought to be done, that he mumbles a vague good morning, or none at all, to his secretary; entirely forgets that there is a new clerk on the job that he ought to take at least ten minutes to meet on a personal friendly level; and is oblivious of the fact that some frictions, minor no doubt, have developed with his assistant that somehow should be washed out before they build up into a major one.

In the Forest Service, we do not have long rows of stenographers, ranks of salesgirls, large staffs of salesmen under a single boss, and the like. With comparatively few exceptions we work in relatively small and often isolated units. Logically, then, our supervisory thinking, and I distinguish here from general planning and organization structure functions, should in the main be in terms of working rather closely with the comparatively few people immediately around us. Not an abstract, general thing at all but a personal matter with the daily little things weighing heavily through their repetitive and cumulative effect. Failure to do some of these important little things is not genuinely due to lack of time at all but a matter of desire and push to do them. If we make our light shine constantly and helpfully within our immediate circle, many of the larger supervisory problems will take care of themselves.

ROTARY CLUB OF ALBUQUERQUE HONORS MORTON M. CHENEY

The Rotary Club of Albuquerque, New Mexico, will present Associate Regional Forester Morton M. Cheney of Region 3 for consideration as District Governor nominee of the 115th District of the Rotary International at the District Conference in Roswell, April 26-28. Mr. Cheney has been a member of the Albuquerque Rotary Club since 1936 and served as President 1939-1940.

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TOWER DEDICATED IN HONOR OF SUPERVISOR'S MOTHER

On Sunday, October 26, the Kelleter Lookout Tower located within the Meramec Forest Protection District was dedicated in honor of Mrs. Pauline J. Kelleter, mother of Supervisor Kelleter of the Clark National Forest. The tower, with adjoining improvements, was constructed for the Missouri Conservation Commission by CCC Camp S-78, on the Meramec State Forest.

-- "Daily Contact," R-9

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FOREST OFFICER PLACED IN CHARGE OF LANDSCAPING AT LOWRY FIELD

In a recent letter to the Washington Office, Director Connaughton of the Rocky Mountain Experiment Station says:

> In June of this year J. T. Cassady of this station was called as reserve officer for duty at Lowry Field, a new air base near Denver. I knew that the War Department was interested in landscaping and in general restoring the vegetation at this air field and that they had called on the Bureau of Plant Industry and others for assistance. Just prior to the time Cassady reported for duty, therefore, I wrote the commanding officer and suggested that they might profitably take advantage of Cassady's experience in their assignment of his duties.
>
> Apparently they were glad to receive the suggestion and after testing Cassady on a few assignments they have now placed him in charge of all landscaping and revegetation work at the field. I am sure that he will do a satisfactory job on this assignment.

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INTERMOUNTAIN REGIONAL OFFICE GIRLS ORGANIZE

A recent issue of the *Daily News*, Region 4, announced that the girls of the Regional Office have effected organization of what promises to be a real live-wire club. The purpose of the club is to foster worth-while educational and national defense projects as well as some social activity. Meetings are scheduled to be held once a month.

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SERVICE SATISFACTION

J. W. Humphrey, Forest Supervisor of the Manti, R-4, wrote Acting Chief Clapp on November 30, the date he retired after "36 field seasons on the national forests":

> I appreciate the opportunities that have come to me by reason of my connection with the Forest Organization. I have had the pleasure of meeting all the Chief Foresters from G. P. down to yourself. I think you were the first inspector after W. W. Clark to visit my ranger district in 1906 or '07. Guards, Rangers, Supervisors, Regional Foresters and the many Chiefs and Assistant Chiefs from all Regions have contributed their part in building up *esprit de corps* among the workers of the Forest Service. . . I think I have never talked with any forest worker for even a short time, on forest work, that I haven't been benefited thru his experiences or his suggestions. And to one and all I herewith extend my sincere thanks. . .
>
> Last, but not least, let me mention the opportunity that came to me to meet all the fine, and many of them brilliant forest users that as an administrative officer I had the pleasure of working with. They opened my eyes many times on many questions, sometimes to the fallacies of their arguments, but in general they were much appreciated.

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FOREST FOLK WHO RETIRED IN DECEMBER AND JANUARY

Region 3. Warren M. Cox, Administrative Assistant, Sitgreaves National Forest; after 32 years in the Service.

Jacob A. Work, Forest Ranger, Lincoln National Forest; after 19 years in the Service.

Region 4. Sidney S. Stewart, Associate Forester, Wasatch National Forest; after 32 years' service.

Region 5. Walter S. Young, Clerk, Mono National Forest; after 18 years' service.

Region 6. George E. Stevenson, Assistant Supervisor, Wallowa; after 31 years' service.

Washington Office. Joseph B. Santucci, Mimeograph Operator; after almost 40 years' service.

THE MOST USEFUL PHOTOGRAPHS of 1941

THERE MAY HAVE BEEN BETTER PHOTOGRAPHS TAKEN IN 1941, BUT FROM THE STANDPOINT OF TELLING THE FOREST SERVICE STORY FOR GENERAL I&E PURPOSES THESE ARE CONSIDERED TOPS.

RALPH G. DEEDE of the CHILDRESS DISTRICT DISCUSSES SHELTER BELTS WITH G.W. HANER, TEXAS COOPERATOR
408435

TAKEN BY
W. H. SHAFFER
STAFF PHOTOGRAPHER,
WASHINGTON

MEASURING WATER CONTENT OF SNOW ON EXPERIMENTAL CUT-OVER AREAS. ARAPAHO NATIONAL FOREST COLORADO.
406363

TAKEN BY
H. A. WILM
ROCKY MTN.
FOREST & RANGE
EXPERIMENT
STATION.

TAKEN BY
H. D. SWAN.
I & E R-1

SMOKE JUMPERS
OVER LOLO NATIONAL
FOREST MONTANA
[redacted]
407560

TAKEN BY
P.S. BIELER
DIV. of ENG.
R-4

CCC
FIRE FIGHTERS
BOISE NATIONAL
FOREST IDAHO.
[redacted]
407336

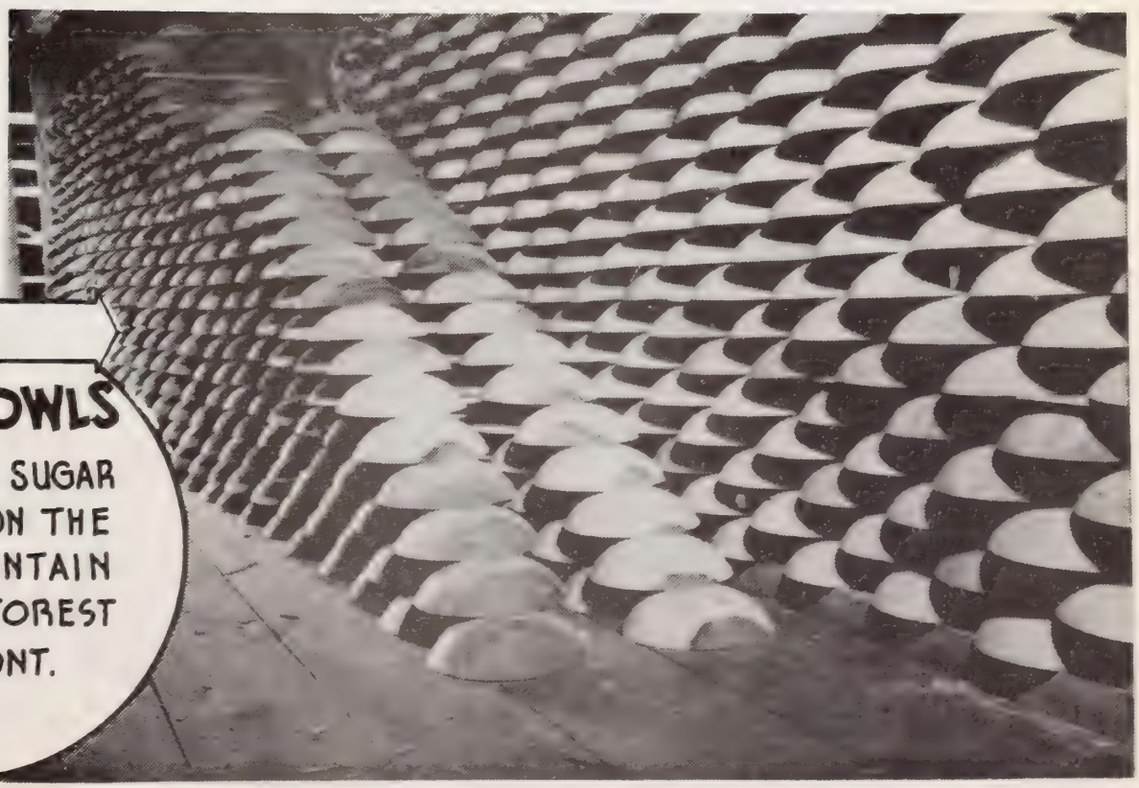
ON LOCATION

In OREGON for 1942 MOTION PICTURE "THERE'S MORE THAN TIMBER IN TREES."

414577

TAKEN BY L.J. PRATER— STAFF PHOTOGRAPHER, WASHINGTON.

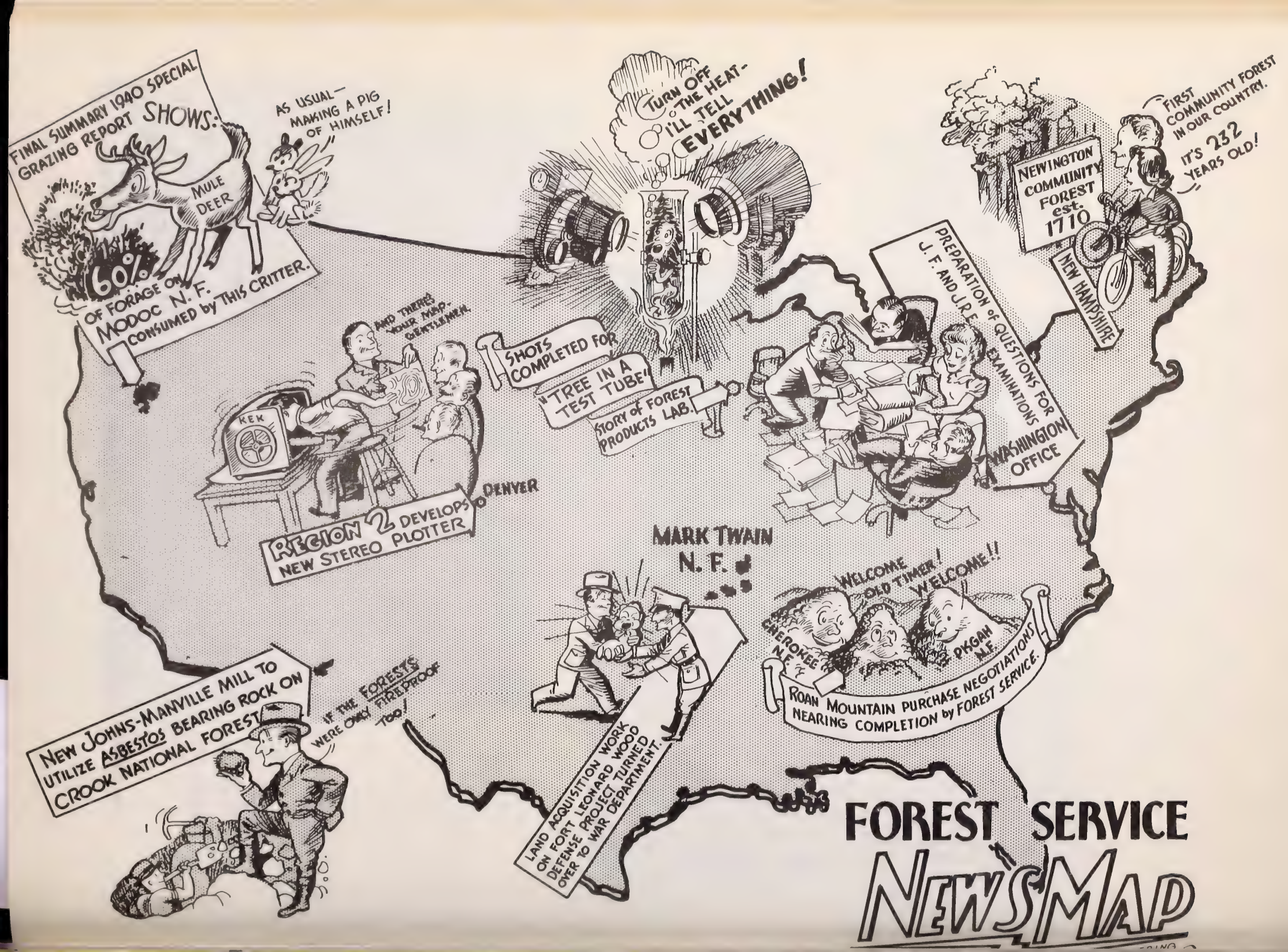
TAKEN BY B.W. MUIR STAFF PHOTOGRAPHER, WASHINGTON.



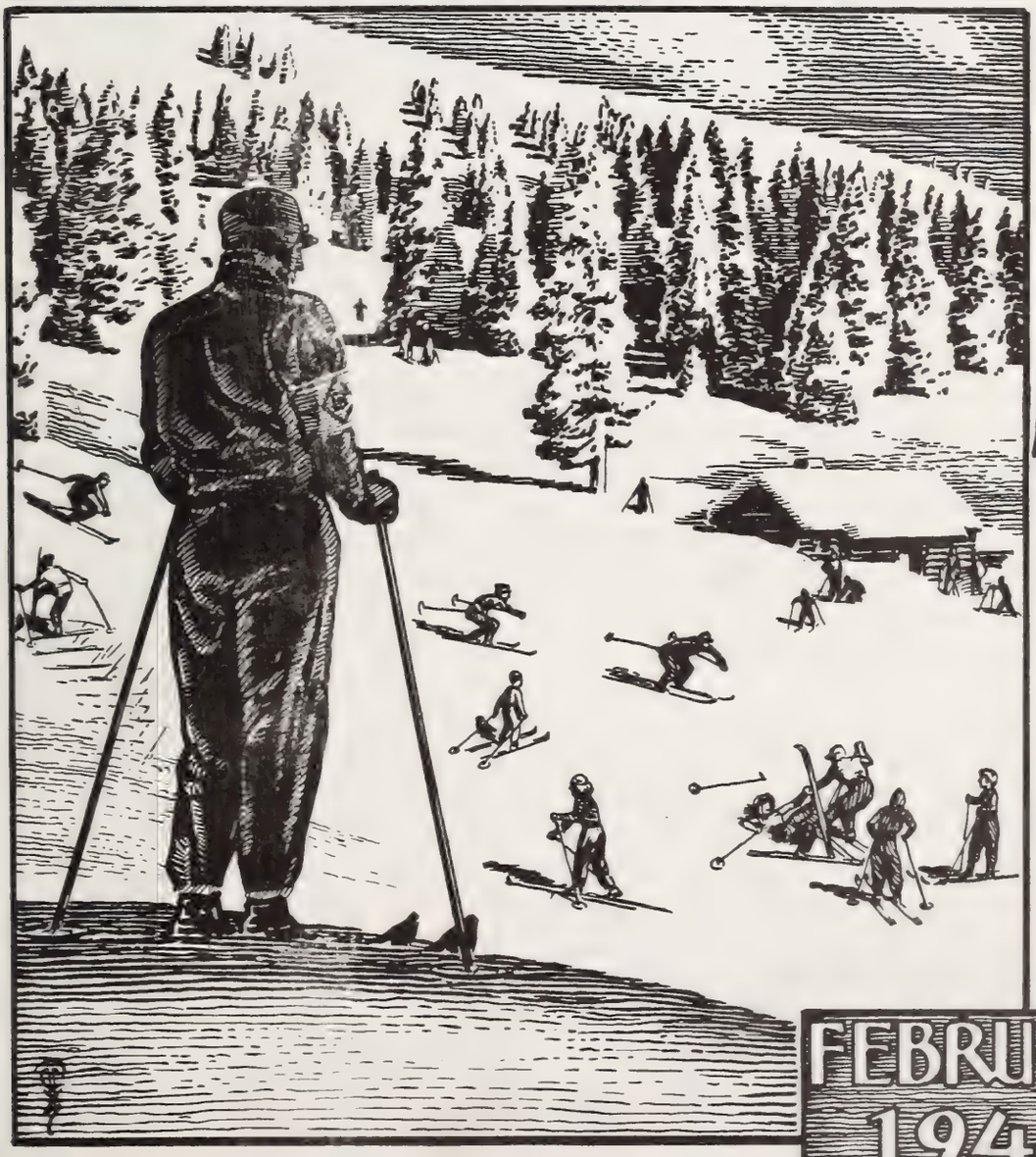
SALAD BOWLS

MADE FROM SUGAR MAPLE CUT ON THE GREEN MOUNTAIN NATIONAL FOREST VERMONT.

408173


FINAL SUMMARY 1940 SPECIAL GRAZING REPORT SHOWS:
MULE DEER
60%
OF FORAGE ON MODOC N. F. CONSUMED by THIS CRITTER.
AS USUAL— MAKING A PIG OF HIMSELF!
TURN OFF THE HEAT— I'LL TELL EVERYTHING!
NEWINGTON COMMUNITY FOREST est. 1710
NEW HAMPSHIRE
FIRST COMMUNITY FOREST IN OUR COUNTRY.
IT'S 232 YEARS OLD!
PREPARATION of QUESTIONS FOR J. F. AND J.R.E. EXAMINATIONS
WASHINGTON OFFICE
AND THERE'S YOUR MAP, GENTLEMEN.
KEK
SHOTS COMPLETED FOR "TREE IN A TEST TUBE"
STORY of FOREST PRODUCTS LAB.
DENVER
REGION 2 DEVELOPS NEW STEREO PLOTTER
MARK TWAIN N. F.
WELCOME OLD TIMER! WELCOME!!
CHEROKEE N.F.
PISGAH N.F.
ROAN MOUNTAIN PURCHASE NEGOTIATIONS NEARING COMPLETION by FOREST SERVICE.
NEW JOHNS-MANVILLE MILL TO UTILIZE ASBESTOS BEARING ROCK ON CROOK NATIONAL FOREST
IF THE FORESTS FIREPROOF WERE ONLY TOO!
LAND ACQUISITION WORK ON FORT LEONARD WOOD DEFENSE PROJECT TURNED OVER TO WAR DEPARTMENT.
FOREST SERVICE
NEWSMAP

FOREST SERVICE BULLETIN



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FEBRUARY
1942
VOLUME 26
NUMBER 2

"Our own objectives are clear -- the objective of smashing the militarism imposed by war lords upon their enslaved people -- the objective of liberating the subjugated nations -- the objective of establishing and securing freedom of speech, freedom of religion, freedom from want and freedom from fear everywhere in the world.

"We shall not stop short of these objectives -- nor shall we be satisfied merely to gain them and then call it a day. I know that I speak for the American people -- and I have good reason to believe I speak also for all the other peoples who fight with us -- when I say that this time we are determined not only to win the war but also to maintain the security of the peace which will follow."

-- From President Roosevelt's Message to Congress on the State of the Nation, January 6, 1942.

▲ ▲ ▲ ▲ ▲

"We all know the great value of participation in sports to individuals during normal times. We believe that this value is increased during wartime conditions when wholesome, healthful recreation promotes a better morale among the civilian population. The sport of skiing ideally fits in a civilian physical fitness program as it is a sport in which individuals of all ages can participate with lots of fun and resulting better health and strength.

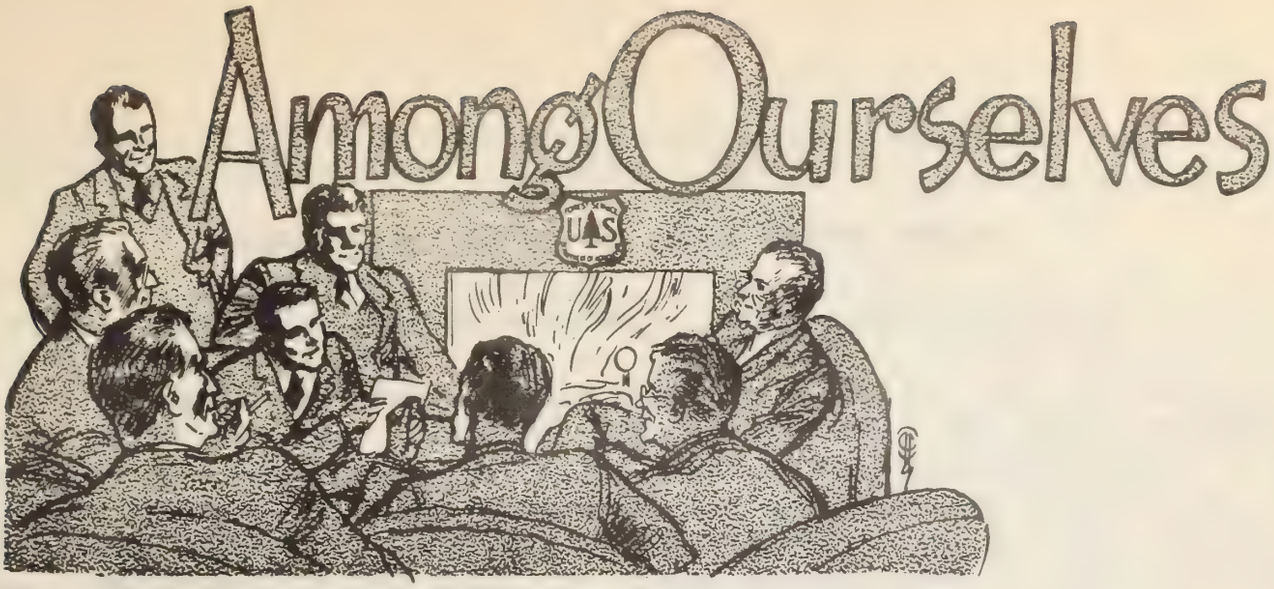
"During past years the U. S. Forest Service has provided excellent opportunities for the public at large to ski in many National Forest areas ideally suited for this purpose. I greatly hope that the Forest Service may be able to operate National Forest winter sports areas for the duration as a valuable contribution toward the morale of our civilian and military population at a time when physical exercise and mental invigoration are imperative."

-- Roger Langley, National Sports Board, Office of Civilian Defense, January 15, 1942

UNITED STATES DEPARTMENT OF AGRICULTURE

Forest Service

(Confidential - Service)



WHY IS IT?

By M. A. Cooper, Division of Operation, Region 2

Why is it -- especially in these times when the need for streamlining administrative processes is so great -- that people in Supervisers' offices say they must check, audit, and review work done by Rangers and other field men because they don't do it right? Why is it that people in Regional Foresters' offices say they must check, audit, and review work done in Supervisors' offices because they don't do it right? Why is it that people in the Chief's office say they must check, audit and review work done in Regional Foresters' offices because they don't do it right? If people don't do things as they should be done, why don't they? Is it because responsibility is not definitely fixed? Is it because people have grown into the habit of expecting "papa" to pull them out of the hole, if they fall into one? Is it because our work is governed by so many instructions that it is impossible for one human being to keep them all in mind? Is it because the men on the ground do not possess all of the information possessed by the men at the top? Is it because the men at the top don't write instructions so they can be understood all the way down the line? Is it because instructions are interpreted and re-interpreted so many times between their source and their point of application that they have become too confused to be followed?

An example of this checking and rechecking was the handling of personnel forms. Ordinarily seven checks were required between the time a request for personnel action originated in a Supervisor's office and the time it was approved. Countless errors were found. The first step taken to correct this situation was to inform field offices that the Washington Office detail check was being discontinued and that correctness of personnel forms was their responsibility. The next step taken was to arrange for specific Manual instructions in positive understandable language. Other steps will still be necessary.

In my opinion a situation similar to that which pertained for personnel exists in other lines of work. Possibly something similar could be done, and anyway we ought to look into it. I wonder if it wouldn't be a rather startling revelation if we could see, in one lump, the amount of effort expended in checking the work of others. Obviously some checking is necessary. Is it necessary to do all that we are doing? If it is -- why is it?

WINTER SPORTS AREAS IN THE NATIONAL FORESTS

By John Sieker, Chief, Division of Recreation and Lands, Washington Office

The Regions can well be proud of their winter sports developments and accomplishments during the last five years. They have responded to a tumultuous and at times insatiable public demand (1,500,000 winter sports "visits" were reported in 1940) and have directed that demand so that it could be met without sacrificing the principles of forest management. In this development the Regions had only a very general policy to guide their planning and construction. That policy emphasized participant over spectator recreation, safety provisions, simplicity over elaborateness in all facilities, ski tows over ski lifts wherever practicable, and relatively small developments as against large resort areas pretending to have national importance. With only such general guidance the Regions went into high gear, met and solved many problems, and overcame many obstacles.

There was frequent conflict between regional objectives and over-enthusiastic local groups who imagined every little snow bowl as another Sun Valley which would put the home town on the map as the ski capital of America. Some of these plans called for Government construction - others requested our permission to build large resorts and ski lifts. Some of these promoters disregarded facts and let their enthusiasm and civic pride run away with them, and it was frequently only the common sense and courage of regional and local Forest Officers that prevented the development of areas far beyond what the public would use and support.

Another example of conflict was the type of area and facilities needed. It was natural that the best skiers were the leaders in local ski clubs and had much to do with molding the opinion of these clubs. Many of these experts unthinkingly recommended a large proportion of difficult trails, downhill racing courses, giant slaloms and jumps. They predicted unreasonable proficiency for the average skier in a year or two and relegated the ski slopes to kindergarten status. Level-headed administrative officers fought these tendencies, perhaps by reason of their own experience in ski technique, and kept ski areas on the ground and the average skier on his feet. They planned on the basis that about 80% of the skiers would spend 90% of their time on ski slopes. They recognized the limitations of the average skier and that the public needs were first for safe practice slopes and then for extensive slopes on steeper terrain. They were not misled when the average skier occasionally forsook the ski slope that he could negotiate successfully to take a ride down a difficult trail that was just too much for him. They realized that he did that just to say he had and that he was having his real fun on the ski slopes.

All of this does not mean that advanced ski runs are being neglected. There is a real need for beginner, intermediate, and expert trails, but priorities should be consistent with the demand and use. As general ski technique improves

the emphasis may shift to trails and slopes of even greater difficulty -- which is something for administrators to watch so that our developments may keep pace with public demand.

One question that has always troubled planners and administrators of recreation areas, including winter sports centers, is, What expense is justified to provide facilities for, say, 20,000 man-days of recreation use a year? It all comes down to: What is a day of recreation worth to the public? We do not know, but the value varies of course with the individual tastes and individual incomes. There is and can be no definite guide, but many authorities believe that if amortization, maintenance, and administration of public recreation areas does not exceed 50¢ per day of use the public benefit fully justifies the cost. Let's look at our record. Using the figures as of January 1, 1937 (you remember the big recreation report), our investment in camping, picnicking, and winter sports areas was $11,800,000. Amortizing this investment on a 20-year basis and adding all direct, indirect, and pro rata costs gives approximately 15¢ per day of use. Subsequent construction has included many large recreation areas and extensive winter sports developments which have been more expensive, but, taking all of these into account, we are quite certain that the cost at present per man-day of recreation use is still under 25¢ and we think it is worth it from a public standpoint.

The administration of winter sports areas presented many problems entirely different from the administration of camping, picknicking and swimming areas in the summer time. Here is a sport in which skill, good equipment, and common sense are prerequisites to safety. Recklessness or poor judgment by one individual may endanger others. Add to that the rigors of the climate, snow slides and sudden storms, not to mention dangerous road conditions and parking difficulties and you have a first-class bear by the tail. It soon became evident that Forest Service personnel were needed on heavily used winter sports areas on week ends and holidays to regulate the use, issue warnings of slide and storm dangers, prepare bulletins on snow conditions, supervise parking, organize searching parties, and cooperate with the National Ski Patrol.

There was the problem of ski lifts and tows and safety. Everybody wanted the lifts but only the foresters remembered that lifts were rather expensive, that the use period was short, and that the costs might be unbearable. Haywire tows were a headache too -- no safety provisions -- no public liability insurance. It took real tact to enforce reasonable construction standards, good operation requirements, safety devices and insurance, but it's been done on most areas.

The Forest Service now administers 254 established winter sports areas embracing some 51,000 acres with an estimated capacity at one time of 157,000 people. The improvements on these areas include at least 123 shelters, 98 lifts or tows, 31 group camping facilities, and 74 concessions. Administering these areas requires a great deal of time and effort. Forest Officers, however, have responded -- have contributed liberally of their own time and have been generally successful in the administration of winter sports. Ever-increasing public use and support is their just reward.

TOTEMS

GOOD WILL AMBASSADOR

"Glad to meetcha," says a new acquaintance. "So you're in the Forest Service. Well, I know a guy in your outfit -- let's see, his name is -- "

"Wiesendanger!" I add with assurance, whether I am in Portland, Oregon, or Portland, Maine.

"Why, yes -- that's the name -- he's head Ranger up there on the Columbia River," or more lately, "up there at Timberline Lodge," and for one summer it was Mount Baker Lodge.

Albert Wiesendanger received his appointment as messenger in the Portland office March 1, 1909. As a growing lad he learned to serve and respect the Forest Service. Much of his knowledge of forestry resulted from close association with trained foresters and with the Regional Office correspondence which at that time went through his hands.

In 1916, after passing the Ranger examination, he was detailed to Eagle Creek, then the end of the famous new Columbia Highway, and the mecca for increasing crowds of dusty Model T. campers. A most popular camping and picnic ground was the result of his tremendous energy and knack for handling tourists. The early popularity of Eagle Creek, in fact, is what really started Region 6 in the recreation field. It still draws more than 70,000 annual visitors.

One of his early-day stunts was to install small transplant beds of tree seedlings just off the highway which immediately attracted tremendous public interest. For years all stages and scenic bus tours stopped to let out passengers for a 10-minute rest. What the signs didn't tell, the stage drivers did after coaching by Albert.

Winters Albert worked in the Regional Office sign shop. Nights he visited schools to deliver slide talks spiced with solos on the harmonica. One surefire stunt was to announce that he could play Yankee Doodle backwards. While the eyes and ears of the youngsters bulged at so accomplished a musician he would about-face and play. At one time in Portland there were nine harmonica bands under his general management.

Notwithstanding his musical and other diversifications he always wove a strong thread of forestry in his PR undertakings. It is safe to say that thousands in the Pacific Northwest have learned the most of what forestry they know and the ethics of the woods from Albert. There is no doubt that Albert always has made his biggest hits with children; and where can we do better educational work than there -- in the eager, fresh minds of youngsters?

Somewhere about this time Albert met Cleo, a very pretty girl, who became his "steady." One evening he stood at the trysting place, gaping expectantly in

various directions from the curbstone. He had come a long way after working all day and his pants bagged at the knees noticeably -- even in the twilight. Cleo approached this crouching profile and with mounting disgust exclaimed, "Well, Albert, if you're going to jump, for gosh sake jump!" He jumped -- and may it be said to the credit of both that he has seldom been known since then to go out with Cleo (later his wife) except in his very best pants, well creased. And could he make a lightning change? He has always done a good deal of personal janitor work on the Forest, but if a notable was scheduled to visit the camp, which has frequently happened, he always sported his trim uniform. After thrilling famous fellows with the wonders of both nature and the Forest Service, Albert immediately tackles the next job, whether it be repairing a comfort station or straightening out an impossible parking tangle in a blizzard.

Portland's June Rose Festival parade has been for years the great annual event for that city. The Forest Service is always requested to take part. On one particular June, officers of the Mount Hood Forest were asked to join the parade in a Forest Service car. So the Supervisor, Assistant Supervisor and Ranger Wiesendanger entered the car at the appointed time, Albert modestly taking the back seat. Bands blared, flower-clad girls smiled and blinked in the sun. The somber vehicle approached the mike. Overlooking Supervisor and Assistant Supervisor, the announcer proclaimed "And here comes Forest Ranger Wiesendanger -- stand up, Albert, so everyone can see you!"

In the fall of 1940 he transferred from sea level to Timberline Lodge and an immediate transformation from summer Ranger to winter sports

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expert was necessary. Before the winter was over, he who at 46 had never skied before was able to negotiate the "Magic Mile," one of Mount Hood's sportiest courses.

One cannot write of the Mount Hood Forest and winter sports without mentioning Ranger Harold Engles, whose district embraces Timberline Lodge. But Harold's exploits in mountain rescues, and his splendid record in other work, deserves a separate story.

Last summer the Portland Fire Department asked the Forest Service for advice on handling a knotty problem of suburban brush fires. Soon the Portland papers had pictures of Albert demonstrating to experts of the P.F.D. how to control brush fires.

And so it goes. Albert Wiesendanger has an aptitude for PR. He has learned how to serve and educate the public in the way the public likes to be served and educated.

--Fred Cleator, Recreation and Lands, Region 6

THE ARMY COMBINES BUSINESS WITH PLEASURE IN ALASKA

By Linn A. Forrest and Alva W. Blackerby, Region 10

Defense activities brought undisclosed numbers of soldiers and workers to Alaska during the past year. Most of them never dreamed that such an abundance of mountain, fiord, and glacier scenery existed. Many have never had an opportunity to hunt, fish, or indulge in winter sports, and they are wildly enthusiastic.

Fortunately, they are near an area having remarkable opportunities for outdoor recreation, both winter and summer. It is one of the world's outstanding big game centers. Mountain sheep, black and grizzly bear, and the largest moose in the world are abundant. Trout fishing is unexcelled.

The area is beautiful, with lake-studded valleys, surrounded by high, sharp peaks. Timberline is low, and snow lies most of the year on the high slopes. Skiing conditions are ideal. Slopes of every degree of steepness with unobstructed runs and gently leveled snowfields at the bottom continue for miles. The timber consists chiefly of open stands of white birch and white spruce. Many excellent ski runs are already available and have been used extensively by local ski enthusiasts, since they are easily accessible from Anchorage, Seward, and other local communities. Ski trains have been run to selected locations.

The Forest Service for years has encouraged local use of the area by maintaining shelters. Now the Army wants to train ski troops, and soldiers need recreation. Here is a unique opportunity to combine business with pleasure. The Forest Service is meeting these increased demands by collaborating with the Army in selecting sites and planning additional structures.

Tentative plans have been completed for building a great many simple shelter cabins from rough sawn materials to accommodate sixteen men each. Besides sleeping quarters, they will have a washroom, fuel storage space, and kitchen facilities. Plans call for six cabins in each unit to accommodate about 100 men. One of the buildings in each unit will be more permanently constructed with extra facilities so that it can be used as a central gathering point.

Special care is being taken in locating these units to coordinate them with the permanent recreational development plan for the area. Radiating from these newly developed centers are excellent cross-country ski runs to already established shelters. Leading from the valleys to mines located high in the mountains are numerous tractor trails which serve as splendid ski runs. The Forest Service is retaining title to all this new construction. After the present emergency is over, the most permanent building in each unit will be used as a lodge for the public.

TIPS TO WINTER PHOTOGRAPHERS

By K. D. Swan, Information and Education, Region 1

Powder snow swirling to the turn of the ski -- Forest Officers on the job in official snow togs -- ranger stations decked in icicles -- mountains crystal clear and glittering -- the silent whiteness of the deep woods! Here's a wealth of subject matter for every photographer. And here are a few tips on making it pay -- both for the official and personal collection.

1. Overcome that certain inertia to take pictures brought about by winter temperatures. Build up determination to get your pictures in spite of the cold, cascades of snow from tree branches, or the annoyance of having to dig for a sunshade buried in a snowdrift. Unlimber the camera and take advantage of every picture opportunity as it presents itself. More good pictures have been lost by procrastination than from poor technique.

2. Carry a small chemical warming pad to limber up numb fingers; and a piece of light, waterproof fabric to spread on the ground when it is necessary to change film packs or arrange equipment.

3. To stop the fast action of winter sports use a camera with a focal plane shutter. Pictures of slalom and jumping require shutter speeds of 1/500 to 1/1000 of a second. A good choice of cameras is a 3¼ x 3¼ Speed Graphic.

4. Use for speed shots fast film such as Eastman Super XX Panchromatic. With a film of this type it will be possible in bright weather to stop down enough to improve definition and to gain depth of focus, even at high shutter speeds.

5. Take your winter shots on sunny days. Snow pictures made in cloudy weather are usually gray and uninteresting.

6. To preserve a pleasing balance between foreground, distance, and sky, and to catch the details of snow texture on sun-lighted landscapes, use a Wratten K2 filter. With a film such as Super XX the exposure is approximately doubled with this filter. In taking pictures of snow-covered trees against a blue sky, try using the filter with a minimum exposure. Results will sometimes be spectacular, with the white forms of the trees standing against a sky that appears almost black in the finished print.

7. Don't overexpose. To do so destroys the sparkle of sun on snow, blocks up the highlight portions of the negatives, and gives a general appearance of soot and whitewash in the print instead of rendering the fine gradation of tones actually present in winter landscapes.

8. Remember that back-lighted shots are often very beautiful, especially where the reflected light from the snow gives luminosity to the shadows. In taking shots toward the sun keep the lens shaded, either by using a deep sunshade, or by holding the camera in the shadow of some object such as a tree trunk. And finally, study current picture magazines to develop a "seeing eye" for those million-dollar shots which we all hope to bring home.

SANTIAM PASS NEIGHBORHOOD CENTER

By R. C. Burgess, District Ranger, Willamette National Forest

Santiam Ski Area Wins New Popularity; Dubbed 'Poor Man's Sun Valley' -- Teen-age skiers who can feed a juke box but are short on folding money are crowding the slopes of the 'poor man's Sun Valley.' The spot--Santiam Pass Area, the nation's first ski development primarily for those unable to afford ritzier resorts. Well-stuffed wallets deepen few sitzmarks on its trails. Already, although Santiam has been in operation only two years, the Forest Service has plans to duplicate it in other parts of the United States. -- Associated Press.

The Santiam Pass Winter Sports Area, like a popular youngster, has many nicknames. You may hear it referred to as "Hoodoo", "Poor Man's Sun Valley", "Hogg Pass", "Three Fingered Jack", "Sand Dunes", or just plain "Santiam."

Its popularity can be attributed to its location as a neighborhood center (the neighborhood having a radius of 100 miles on good highways), its cooperative development through the Central Cascade Recreational Council, and its low-priced accommodations.

The area was selected in 1938 by representatives of all interested communities. A modest development was started that summer and the following winter there were 2000 users. This use proved to us we had chosen our area well; so we started to develop it with the blessing of the Regional and Washington Offices and a $2500 allotment.

From our meager experience of the first winter, we learned that we needed a governing board to centralize ideas and plans. Using the original group as a nucleus we organized the Central Cascade Recreational Council in the spring of 1939. This group comprises representatives from each club (now ten) using the area, the Forest Supervisor, and the District Ranger. The Council chooses a chairman who is authorized to represent it in all dealings with the Forest Service. The permit is issued to the Council which chooses a concessionaire to operate the "Lodge" with Forest Service approval.

The lodge was built after a busy fire season in the summer and fall of 1939 and was ready for use that winter. A CCC crew of 20 men and $2500 in cash gave us a good building that would accommodate 60 overnight guests, with toilets, showers, lobby, and dining room. There have been as many as 1100 visitors on a single day. A large percentage are high school and college youngsters. Early in the development the Recreation Council adopted a policy that would fit into their financial scheme and moral well-being -- lodging 50¢ per night where one's own sleeping bag is furnished and $1.00 with bedding furnished by the concessionaire (90% furnish their own bedding). Meals range from 25¢ to 65¢ with group rates for adults at $10.00 per week or $1.00 per day for junior groups of 10 or more under 18 years of age.

With this price schedule a youngster can come to Santiam Pass on Friday night after school and stay through Sunday and have a whale of a time for two or three dollars, and his or her folks are assured of proper supervision and chaperoning. The use for 1939-1940 jumped to 6000. In the summer of 1940 it was necessary to build an annex and a waxing room, increasing the overnight accommodations from 60 to 90. The use in 1940-41 climbed to 10,000!

This past summer we received invaluable cooperation from the State Highway Department and U. S. Public Roads Administration on service roads and parking areas (the Highway Department has always handled all snow removal). The concessionaire is doing all right financially, and two low-cost ski tows are operating at a profit. This winter should see the use of Santiam Pass jump to 15,000 users, regardless of a 20% increase in prices to cover increased food and labor costs.

WINTER SPORTS TRAINING SCHOOLS

By Wilfred S. Davis, District Ranger, Arapaho National Forest

The second Region 2 school for training in winter sports administration was held on the Arapaho National Forest December 15-22, with 13 Rangers, 2 Landscape Architects, and 1 Assistant Supervisor in attendance. The training session was conducted by Assistant Regional Forester H. C. Hilton, Training Officer L. P. Brown, and the writer.

Actual ski instruction was limited to a few hours each day but each man was given a thorough grounding in fundamentals, including skiing in unbroken snow. The use of the Signal Corps' excellent ski training movie, "The Fundamentals of Skiing" was of great help. Considerable time was spent in discussion of administrative policies and cooperation with winter sports organizations, as well as the study of developed winter sports areas under actual use. In connection with the latter, Prof. John T. Lynch of Denver University gave the group an entirely new slant on public relations by presenting the views of the private citizen who uses our recreation areas. His discussion effectively drove home the need for more adequately maintaining our recreational facilities, and for gaining the friendship and respect of the public by increased use of courtesy, tact, and diplomacy.

One evening was devoted to a demonstration of applying first aid to accidents common on winter sports areas, and another was spent in visiting the Evergreen Lake skating area near Denver to study the administration of this branch of winter sports. Field instruction was also given in the use of the first-aid toboggan in handling rescue cases.

Of perhaps greatest interest to all trainees was a one-day cross-country trip into the undeveloped Arapaho Basin, on the west side of Loveland Pass. The school was divided into six groups, and each was given the problem of making a complete layout plan showing how the area could best be developed for winter sports use. We were favored by wonderfully clear and warm weather during this trip, and everyone had an opportunity to make a thorough study of the basin. In the evening all plans were discussed, and were then compared with the approved layout plan for Arapaho Basin. There was a marked similarity between all the plans and the one approved, clearly showing that earlier discussions and study of the layout of winter sports developments had borne fruit.

In order to illustrate how timing of races is carried out, field instruction was ended with a short demonstration downhill race in which everyone took part. Since a single fall meant disqualification the times made were not remarkable, but the increased skiing ability over the first day was outstanding.

All trainees returned to their respective winter sports areas much better qualified to handle administrative problems, and it was the consensus that the short week spent at the 1941 Region 2 Winter Sports Training School was decidedly worth while. I understand the other Regions where similar schools have been held are equally enthusiastic over the results of such training.

YOUNGSTERS ON THE SNOW SLOPES

By Perl Charles, Assistant Forest Supervisor, Cibola National Forest

Modern skiing began in New Mexico about 1935. All were beginners, the boys and girls starting with the older group, advancing through the various stages from barrel staves and toe straps to laminated skis and super diagonals.

A number of interested adults realized early in the development that only through placing particular emphasis on aiding, training, and encouraging the youngsters could the best progress be made. Consequently the first junior skier organization in New Mexico was formed at Santa Fe in 1936. This has now grown to include a junior organization associated with practically every adult club in the State.

During the first stages of development the small proportion of juniors as compared to adult skiers was very noticeable. This was due principally to expense and lack of transportation. The action initiated to overcome these difficulties may be of interest to others handicapped by the same problem.

Local enthusiasts and the adult club were first induced to sponsor a ski bus transporting boys and girls to the practice hill for 10¢ each, the sponsors paying the difference between the 10¢ charged and the 25¢ actual cost. Later the principal consented to arrange for transportation by school busses at a nominal fee and provided supervision from the school athletic personnel. The trips were made during physical education periods and the assignment of school personnel for supervision was a very material improvement.

The problem of equipment was approached through sporting goods stores and women's clubs who collected discarded ski outfits and loaned them to deserving children on the recommendation of school authorities and a special committee. The adult group convinced most local tow operators that more revenue can be secured from a 25¢ daily rate for juniors than at a higher figure. This was so definitely shown by experiment that the 25¢ rate is generally used for juniors in this area and is probably the largest factor in increasing the number of young skiers -- a worthy Nation-wide goal.

The need for doing everything possible to reduce accidents was immediately recognized. Instruction for beginners was arranged free or at low cost. Use of a suitable binder was required and some of the boys made fair binders in a manual training class. A near-serious accident when a small boy's clothing became entangled in the twisting tow rope resulted in development and use of an effective safety device on all tows in this area.

There is ample evidence to demonstrate the value of the program with respect to increased safety and the more advanced junior skiers in New Mexico now place consistently in open competition with the best adult performers and plan and manage their annual junior meets with a minimum of adult supervision.

WHEN WINTER COMES....

By Robert S. Monahan, Information and Education, Washington Office

Elsewhere in this issue are significant examples of what the Forest Service is doing for snow sports. What the growth of winter recreation is doing for the Forest Service is still another story.

Behind the opportunities for effective cooperation with new groups, the lengthened work week, the all-night man hunts, the increased informational service, and all the other responsibilities added to the snow country Forest Officer's job lie partial solutions of two Service-wide problems.

The notorious plight of the short-term employee and the premature retirement of active Forest Rangers have not been eliminated by the popularity of winter recreation in the National Forests but they are being relieved somewhat. A few examples:

In the Northwest, Hjalmar Hvam, Forest Guard for ten summers on the Mount Hood, has operated a ski shop in Portland during the past four winters. His patented "Saf Ski" toe irons won for him one of the three honorable mentions for the coveted 1941 American Ski Trophy awarded in 1940 to Alf Engen of the Cache National Forest. George Henderson, Timberline Lodge promotion manager, and Jack Farrell, chief operator of the Forest Service-owned chair lift, are ex-Guards. Among Farrell's winter assistants are Win Hull, Forest Service packer for at least thirty summers, and Hull's three boys, all members of Mount Hood's family of short-term employees. When the last three fire seasons ended on the Mount Hood, Boyd French, Jr. turned to his dad's two-stage rope tow which serves the Tom, Dick & Harry Ski Bowl in the same Forest.

Virgil (Buzz) Carrell, Administrative Assistant for Cle Elum Ranger Station on the Wenatchee, has operated for several winters the concessions at Snoqualmie Ski Bowl where the present American ski jumping record was established last March.

When winter comes to the Snoqualmie, Clayton Lewis, Administrative Guard in the North Bend District, now has a winter job in charge of the popular Snoqualmie Pass winter sports area.

In the Northeast, Bob Smith, Recreation Administrator on the White Mountain National Forest, never knew what winter would bring when the Labor Day exodus started from Dolly Copp Recreation Area. He is now putting in his fourth winter at the Tuckerman Ravine Shelter operated by the Forest Service at Mount Washington's timberline.

In the Southwest, visitors to Arizona Snow Bowl under the San Francisco Peaks of the Coconino National Forest order "Riceburgers" which are served by retired Ranger "R.H." Rice who operates the lunchroom concession with his wife.

Tom Bloomer, mess sergeant for several years at the Cibola CCC Camp, is now the concessionaire in the new shelter at the Sandia Mountain area on the Cibola National Forest.

Graeme McGowan, former Recreation Planner under CCC in Region 2 and Region 3, built and is operating under permit the tow and concession at Big Tesuque on the Santa Fe. He also manages the outstanding shelter, concession and tow at Hyde State Park, and is the "Pro" for both of these related areas. McGowan pioneered winter sports development in northern New Mexico.

In the Intermountain Region, should you hire a Sun Valley taxicab in Ketchum your driver will probably be Alden Shaw, Sawtooth National Forest fire lookout. And the chair lift you ride will doubtless be operated or maintained by Sawtooth seasonal employees who switch summer and winter jobs to the mutual satisfaction of the Union Pacific and the Forest Service.

Sverre Engen, fire patrolman on the Salt Lake City watershed in the Wasatch National Forest, has just started a ski school with his brothers in Snow Basin on the Cache National Forest.

Jack Park, key Guard on the Warren District of the Idaho, operates the Forest Service shelter and restaurant concessions at the Payette Lakes ski center where the winter sports director is Lloyd Johnson, Ranger Alternate during the summer on the Meadows District of the Idaho.

In such ways as these winter sports developments have offered opportunities to a growing number of Forest Service employees to round out a more adequate annual wage and to work and live throughout the year in the National Forest area of their choice.

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In explaining under "Youngsters on the Snow Slopes" one reason why skiing has become a fixture in the National Forest recreation program, Assistant Supervisor Charles, the National Ski Association's junior representative for New Mexico, also indicates some of the ways in which Forest Officers have contributed their personal time and effort to assure its healthy growth. His interest in junior skiing remains undimmed, despite a broken leg mishap, one week after submitting these suggestions, while attending a tournament on the Arapaho National Forest in Colorado with his New Mexican proteges including his two sons.

SKIS FOR BUSINESS

By L. S. Smith, Staff Assistant, Tahoe National Forest

In the forests of the East, the Indian or Canadian web-snowshoes were used almost universally. The use of skis was confined largely to sports in the Lake States and in New England.

In California, skis were used for all winter travel in the mountains by the early-day miners, who were forced to make their own "snowshoes" out of fir or spruce (Douglas fir). They were longer and lighter than the eastern hardwood ski and merely had a leather toe strap. No control of the ski was possible without a heavy pole which was used as a brake and rudder.

In the early days of the Forest Service in the West, skis were tried for transportation on winter timber reconnaissance. The first skis were heavy and the bindings obtainable at that time were very unsatisfactory. It was found extremely difficult to tow loaded toboggans when using skis and so they were discarded for webs.

Because of lack of suitable equipment, boots and clothing, the use of skis by the Forest Service practically ceased for a number of years and much necessary work that could have been done in winter was therefore left for spring or summer. With the development of lighter and better skis, better bindings and good ski boots, the use of skis for winter work and recreational use has increased with great rapidity. Now much winter surveying can be done largely on skis. In fact in much of the less rough timbered areas, survey lines can be run more easily in winter than in summer.

Snow surveys are now of great value to all water users. This work can be done on skis to greater advantage than by webs. It has been argued by snowshoe advocates that webs are safer; that one can work on them; and that webs are just about as fast in rough country; and that when snow is sticky, travel by skis is sometimes impossible. Much of this is true. However, when travel is difficult on skis due to newly fallen or sticky snow, it is frequently just as difficult on snowshoes. Snowshoe travel is almost impossible in rough country when there are crusty or icy conditions but quite possible with steel-edged skis; therefore, practically all snow survey crews use skis instead of web-snowshoes. Travel is much faster on skis, especially on long trips and under varied conditions of snow and topography.

Game studies, checking on movements of a deer herd either yarded up in deep snow or traveling out of the snow country, can be done efficiently on skis, except in areas of very dense small timber, when some crews carry a pair of web snowshoes for such conditions.

Another winter job that has now grown to be a major one, is that of supervising winter sports on the National Forests. In this recreational activity,

the ability to ski is mandatory. We cannot allow the week-end visitor from the city to come into the forest and tell us things about it that we do not know. A Forest Officer must now be up to all the latest tricks of the game so that the Service may play a large part in the proper and safe development of the sport and one who cannot get about in the mountains safely himself cannot expect to impress the public with need for "control", "safety" and "sane" travel.

Forest Officers are usually called upon in cases of accident to render first aid. Therefore, it seems quite essential that all field men have first-aid training, but this alone will not be of value to a man hurt back in the hills unless the Forest Officer can get to him. Therefore, ability to ski and ski safely is a prerequisite. No Forest Officer should be sent out on any winter job until he has had lessons in controlled skiing. When he has acquired that ability he should try to keep in condition. It is not necessary that he should be a so-called expert or that he should be able to enter competitions. Mountaineering ability is the real test.

All Forest Officers having anything to do directly with recreational supervision, such as those on duty at ski centers, should by all means have a winter uniform. For Forest Officers who have to stand around in a restricted radius, heavier clothing is necessary. The heavy weight uniform jacket is especially valuable for this purpose and, when traveling, should be carried in a pack, even if not needed at the time.

The different weights of uniform cloth furnished by the Fechheimer Company permits the selection of a weight that suits the job or climate. In California for active skiing very lightweight cloth is all that is necessary. Lightweight serge or woolen cloth snags easily. The most popular cloth out here for general use is gabardine with serge next. Poplin windbreakers or parkas are used generally.

The appearance of the first arm badge was favorably received by the California public. Several skiers stated: "I am glad the Forest Service has at last adopted a winter badge that really shows up."

It is suggested that a lightweight parka, similar in shape and design to the Army parka, be adopted as alternate uniform and that a gabardine be adopted for alternate choice for trousers as we usually do not need the warmer woolens needed in colder climates. We regret that Fechheimer is unable to stock gabardine because it is not one of the bronze heather fabrics used in regular uniforms.

For those field officers who should be in uniform at winter sports centers, it is recommended that parkas and arm badges be furnished by the Service. These would not become property of the user any more than other official equipment. The State furnishes such winter clothing for state highway and snow survey crews. The Federal Government should do likewise.

THERE'S MORE THAN SKIING IN WINTER SPORTS

By Ray E. Bassett, Division of Recreation and Lands, Region 9

The wide open spaces of the National Forests offer opportunities for many forms of winter sports not possible in the urban areas. The terrain and climate of the National Forests in the northern part of this Region are ideal for all forms of winter recreation.

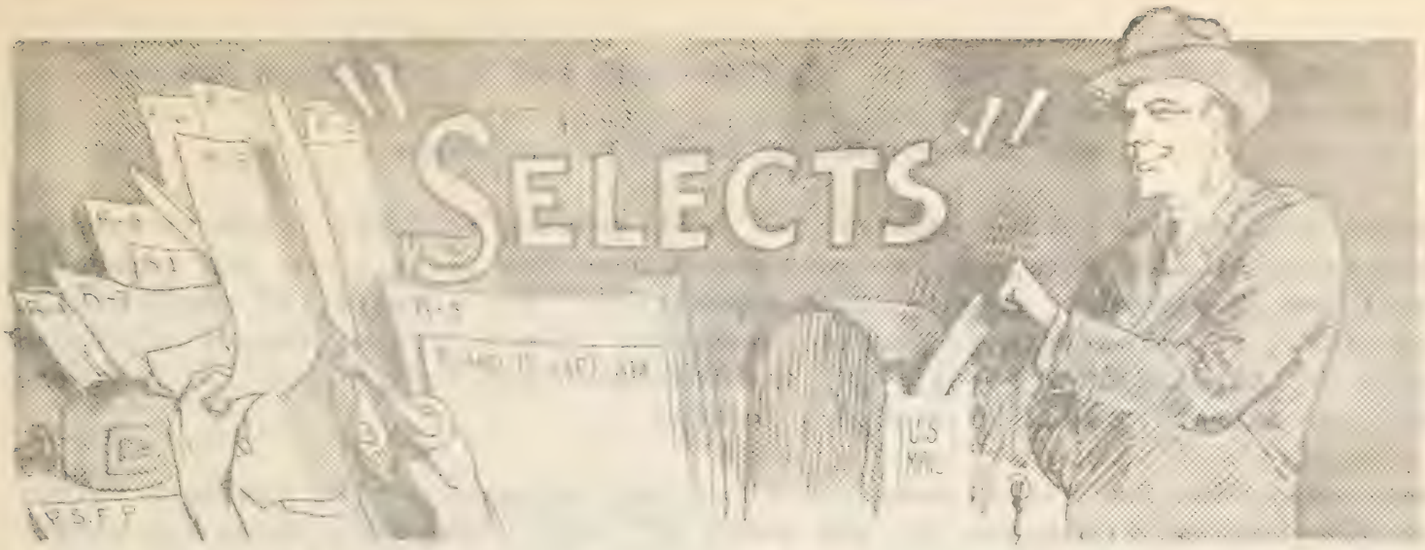
Besides cross-country ski trails, downhill and slalom slopes and ski jumps, much interest is shown in trails for snowshoeing across scenic country, toboggan and tin-pan slides, skating ponds, sled hills, and other winter activities which have been introduced in our forested areas. Facilities such as warming shelters, lodges, ski and toboggan tows and lifts, water and sanitary sewerage systems, roads and parking facilities, provisions for purchase and rental of winter sports equipment and clothing, eating and lodging accommodations are all a part of the development. Many areas are within a few hours train travel from our larger population centers and special snow trains are provided to bring the city people into the snow areas of the Forests.

"First comers" usually are without equipment or bring skates. Not having learned to ski, they are not prepared so they do the easiest things - look on, rent a toboggan, skate if they have skated before or enter into some of the other activities. Skiing is the most difficult of winter sports to master well and doubtless the most spectacular, but the other sports create a more immediate outlet for participation.

In toboggan slide construction and maintenance, we have found that earth or sod bottoms are better than plank for prolonging good, icy conditions and are more economical. Also, timbered cross-ties for the support of the side boards are buried so as to get a uniform ice condition in the bottom of the trough. Metal is sometimes used instead of plank for the sides of the slide. Sawdust in the trough at the end of the slides is necessary to slow down toboggans on days when ice conditions demand. Brush fences parallel with toboggan slides are frequently used to protect them from direct sunlight and snow drifting.

The Forest Service constructs toboggan slides, usually with CCC aid, but their operation and the construction, maintenance and operation of ski and toboggan tows, rentals and safety responsibility are placed in private hands either by the local ski club, where the net profits revert to the area in the form of improvements, or by private concessionaire under a special use permit.

Last year a survey was made on the 31 public winter sports areas in or within the sphere of influence of the National Forests in this Region where approximately 500,000 persons participated in winter sports. The following list indicates the various forms of activity and the percentage of total use for each: tobogganing, 26%; skating, 22%; skiing, 16%; ski jumping, 1.5%; sledding, 1%; snowshoeing, .5%; mixed users, 12%; spectators, 20%; dog sledging, sleigh riding, mono-skiing, bob-sled riding, cutter riding, ski joring, tin-pan riding, snowshoe baseball, all 1%.



IMPROVED FOREST PRACTICE IN DEFENSE OF DEMOCRACY

A timely and refreshing approach to this business of regulating cutting practices was made by J. Alfred Hall in a recent talk to a group of Ohio bankers. Said the Central States Station director:

> We are proud that we are a democracy. We believe that we are justified in fighting a war to preserve our right to think and do as we please. As a matter of fact, we are talking about spending a hundred billions of dollars right now in fighting a war for the preservation of our right to govern ourselves the way we want to govern ourselves. Did you ever stop to figure out just how much of an investment that means in terms of acres of land? We have just about 2,000,000,000 acres of land in the United States, and so we are going to spend $100,000,000,000 in defending our right to do with that land as we please. That's at the rate of about $50 an acre. I suspect that if you could sell southeastern Ohio land -- all of it -- for $50 an acre right now, it would be a very good sale. And yet we're willing to spend $50 an acre just to decide that we can do with it as we please. All right, we've been doing with it as we pleased for the last 150 years. Look at the shape it's in. Do you want to go ahead and leave things in that way?
>
> Let me suggest this thought to you. Did you ever stop to consider that a democracy, much as we love it, really couldn't exist except upon a basis of almost limitless natural resources? You can't have a democracy in a land of poor people without jobs, with hungry bellies and no hope for the future. That sort of a country breeds dictatorships. Isn't it a good idea then, for a democracy to begin to take some thought looking toward the preservation of those boundless resources with which the Lord blessed it? . . . Isn't it time, now that we've come to the crossroads and we know that we're going to have to fight in order to preserve our type of civilization, isn't it time to begin to take thought also about this fundamental basis of our type of civilization -- the perpetuation of an abundance of economic goods upon which a democracy can live?

-- *"Daily Contact,"* R-0

WINTER SPORTS -- A PART OF THE YEAR-ROUND PUBLIC RECREATION PROGRAM

By A. G. Nord, Assistant Regional Forester, Region 4

Public interest in winter sports has been growing rapidly. The increasing popularity of this form of recreation has been due largely to the interest, local and Statewide, arising from sponsorship and support of semi-public non-profit organizations and public agencies. There are now twenty developed areas in the National Forests of the Intermountain Region, to which there were approximately 280,000 visitors in 1941.

Admittedly, the Sun Valley development on and adjacent to the Sawtooth Forest was the Region 4 pioneer in the field of high class facilities for winter sports. It is a thoroughly successful enterprise that meets a special demand. However, strictly commercial developments could not be expected, nor were they available, to pave the way for programs necessary to serve the local public in the many locations where opportunities existed and where there was a definite demand. Neither is it likely that numerous commercially sponsored developments would have been as enthusiastically supported as the programs sponsored by the local semi-public groups.

In the main, the growth of winter sports developments has been through the leadership of the Forest Service in pioneering the field of opportunity, finding a desirable location in relation to the public to be served, determining the problem of accessibility, and maintaining a cooperative attitude toward the local program.

Winter sports associations were frequently formed to serve as the medium necessary for getting the program into action. Through their activities, sources of cooperation in each phase of the development were secured. Winter sports enthusiasts, including the membership of the outdoor organizations, represent a wide cross section of the local public. The importance of winter sports as a part of the local recreation program is therefore brought fully to the fore, resulting in wide participation and support. Community sponsorship also creates the incentive to obtain maximum use at minimum cost. A project for a winter sports association, if only that of building and operating a facility, generates enthusiastic adherents to the local program.

The rapid development of the Alta Winter Sports Area in the Wasatch Forest, southeast of Salt Lake City, is an interesting example. It is the result of many avenues of cooperation, including the winter sports association, the local chambers of commerce, city, county, CCC, WPA, and Forest Service with contributions from local commercial concerns, including the Denver & Rio Grande Railroad, and donations of land from three mining companies. There were 93,000 visitors to this area in 1941.

When recreation groups and civic leadership recognize that winter sports in the national forest environment is a part of the local year-round recreation program, the momentum of obtaining cooperation toward a development is greatly accelerated and the winter sports program at minimum Federal expense is secure. Public recreation facilities become a truly democratic institution.

SPECIAL USE PERMITS FOR SKI RACES

By G. S. Wheeler, Assistant Forest Supervisor, White Mountain National Forest

Located in the heavy snowbelt, easily accessible from Eastern population centers, and containing a third of the classified racing trails in the East, the White Mountain National Forest has long been a favorite spot for competitive skiing events. They not only attract a large number of competitors, but also a crowd of spectators.

One example is the group of 2200 spectators that gathered in Tuckerman Ravine, three miles from the nearest highway, to watch the "Inferno Race" from the summit of Mt. Washington to Pinkham Notch. This event was handled as a Special Use and was so controlled that the spectators were evacuated from Tuckerman Ravine, on skis and on foot, down the three miles of intermediate ski trail in about an hour and a half with only three serious accidents. Without such control of the event, and especially the spectator traffic, experience indicates we would have had up to 25 serious accidents.

To minimize accidents, place competitive skiing under better administration, and develop more effective cooperation between ski officials and Forest Officers, ski races on this Forest have been handled as Special Uses. No permits are issued unless the U. S. Eastern Amateur Ski Association has indicated the event is sanctioned, inasmuch as it does not seem practical to go through the formalities of permitting exclusive use of a trail every time some small group decides to run an event. The U.S.E.A.S.A. has been very cooperative in sanctioning events, and only those of regional interest have received its approval. The organization sponsoring the event is given exclusive use of the trail or slope for that day, and the permit contains provisions covering the following points:

1. The sponsoring organization's representative who will have full authority to make decisions for the permittee on the ground.

2. The number of first-aid crews the permittee and the Forest Service will provide, and the location of each, also the doctor provided by the club.

3. Amount and type of first-aid equipment and who is to provide it.

4. The size and type of ski patrol provided by the permittee to regulate spectator traffic and delay race in case of a serious accident.

The control of skiing events through Special Use procedure has met with the continued approval of the ski clubs, inasmuch as they understand that their responsibility in sanctioning events includes safety of the spectators. It has cut the accident rate on our winter sports areas nearly two-thirds.

LUMBER PRODUCTION GOAL
33,600,000 Bd. Ft.
WHERE - OH WHERE AM I GOING TO FIND FIRE FIGHTERS ?
15,800,000 CORDS FOR 1942
PULPWOOD DEMANDS INCREASING IN R-9
660,000,000 Bd.Ft. Sold or contracted for 90% GOING DIRECTLY FOR DEFENSE NEEDS
NETSA
WINTER MANEUVERS OF PARACHUTING SKI TROOPS
WASATCH N.F.
WORK STARTS ON HIGHWAY TRAVEL UNDER LOVELAND PASS
...WILL INCREASE AVAILABILITY OF VITAL MINERAL AND FOREST RESOURCES
ARAPAHO N.F.
"I ASK UNANIMOUS CONSENT TO HAVE PRINTED IN THE CONGRESSIONAL RECORD...."
"FOREST SERVICE GOES TO WAR" (Page A131-Jan 14)
LOOK - HERES A SWELL ARTICLE ON THE PSFP !!
SINCE 1892 !!
SANTA FE N.F.
LOOKOUTS MANNED AS AIRCRAFT WARNING POSTS (East as well as west coast)
PECOS FOREST RESERVE 50% ANNIVERSARY
1942 NAVAL STORES GOAL 450,000 Bbls. Gum Turpentine 1,500,000 Bbls. Gum Rosin
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DIVISION OF ENGINEERING

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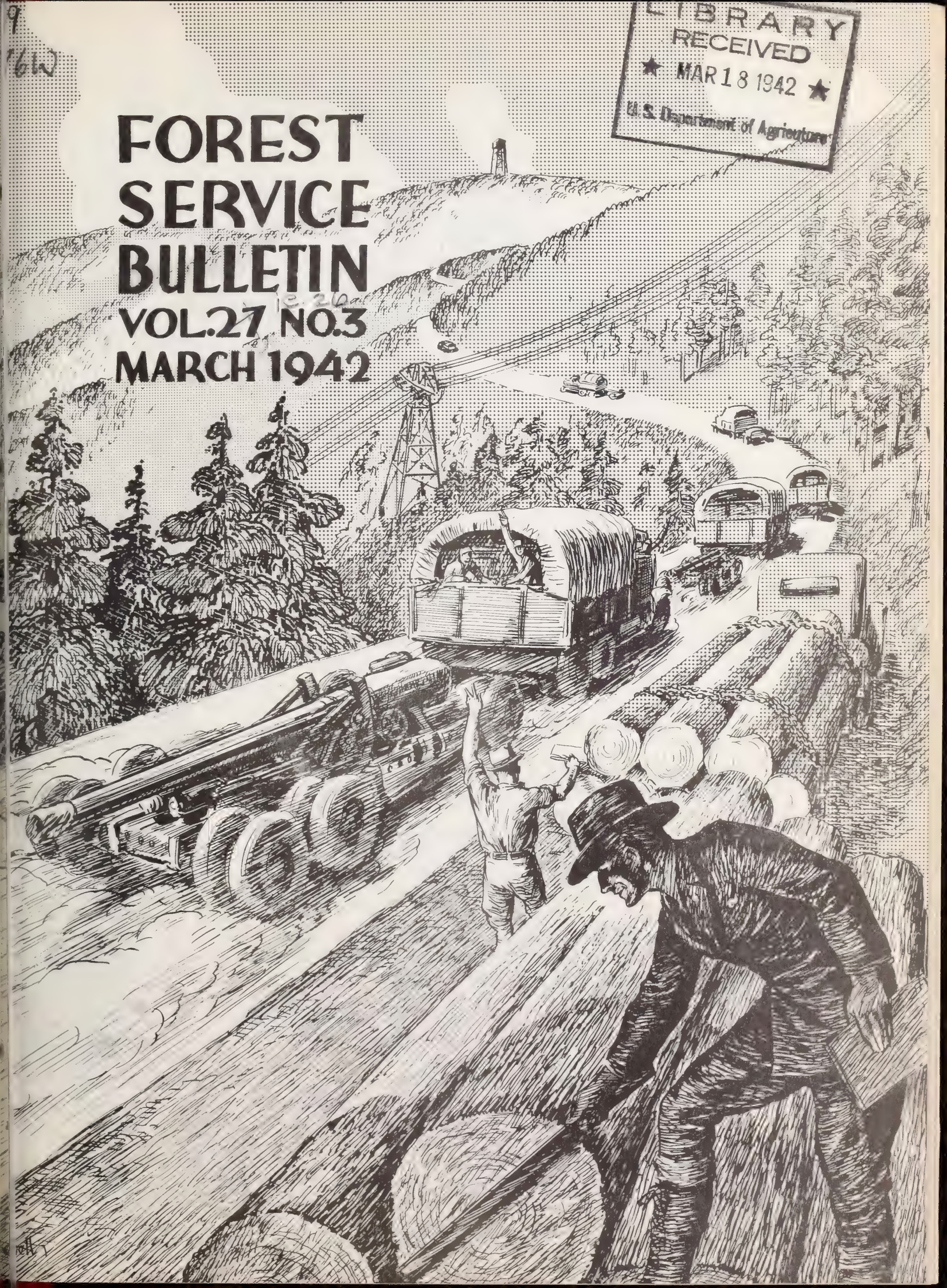


"The production effort of 1914-18 . . . was a magnificent accomplishment. But it was woefully incomplete. We had no adequate machinery for protecting our farm lands and our privately owned forests while we used them.

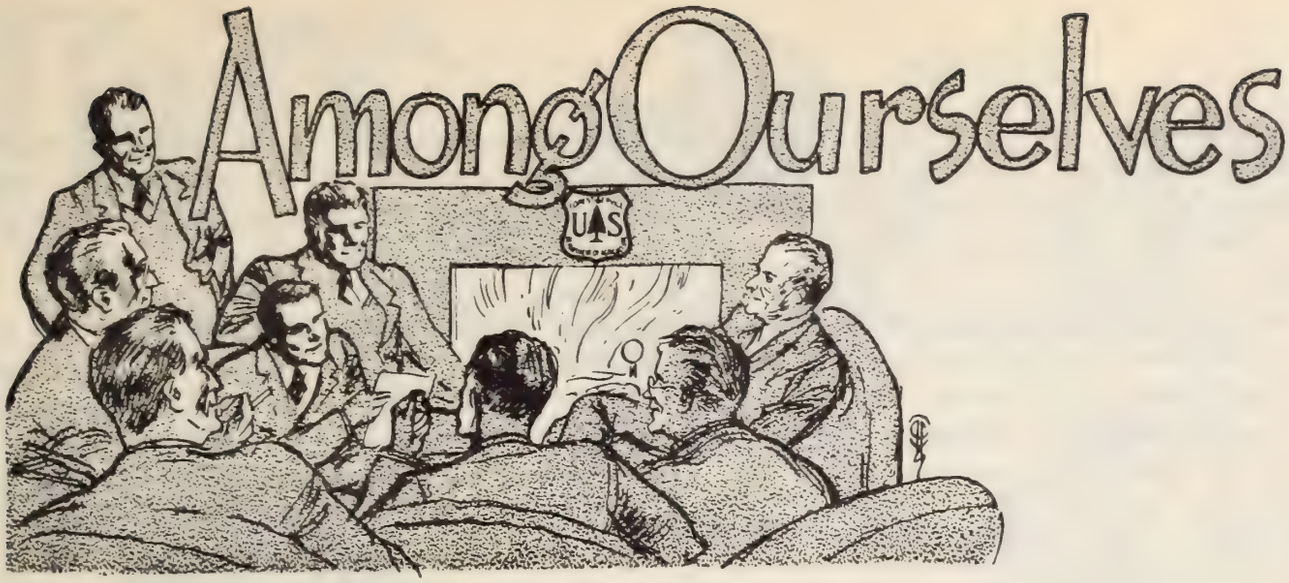
"This time we have the plans, the understanding, the machinery and the urgent need to do a *complete* job. We can guide our agricultural defense production along lines of the best use of land . . . produce with a minimum of waste . . . plan for and carry out needed readjustments in the post-war period . . . and even use the driving power of defense to bring about some much needed adjustments toward conservation. . ."

-- Claude R. Wickard, Secretary of Agriculture,
October 14, 1941

UNITED STATES DEPARTMENT OF AGRICULTURE

Forest Service

(Confidential - Service)



THE FOREST SERVICE AND THE WAR EFFORT

Our President has said, "We are now in this war. We are in it -- all the way."

The full import of this has struck home to some of us who have already lost loved ones as a result of war, or have left homes and families and friends to serve on special projects or with the armed forces. To others the full significance of the war remains to be realized, and there are many of us who wonder whether to stay put, to seek military service, or to change to some other Federal or industrial war work.

All this involves making personal decisions. They may well be based on considered values of alternatives one of which is work the Forest Service is doing or will be called upon to do. Hence this effort to set down -- simply and objectively -- a few things which may help us gauge the potential value of our own contributions as members of the Forest Service.

Our organization was engaged in many indirect and direct defense efforts when the Secretary ordered that the whole Department be streamlined for war. The scope, character, and importance of many of our current activities are presented elsewhere in this issue. Those activities are changing daily, and more and newer assignments will come as a result of continuing surveys to determine what additional shifts can be made to activities that contribute more directly to the winning of the war and the peace.

All of us realize that armed services require stronger backing than ever before. Looking farther ahead, the President has said "It is a part of our war effort . . . to conserve natural resources and keep in repair our national plant." This is our responsibility with respect to the forest part of our national plant. This is where we are equipped and trained to serve. It is, we know, a field that includes the privately owned forest resource; that involves such assurances as will stop destructive forest practices on this land and keep it continuously productive: -- that, in short, and primarily, involves Nation-wide public regulation and community, State, and Federal ownership and management of much more forest land.

We know, if we have kept our eyes and our ears and our minds open, that this conservation part of the war effort cannot be won if all march to the front

lines. We also know, if we have kept our eyes and our ears and our minds open, that more and more effort will be required from each of us in the Forest Service, and that each of us will have to draw increasingly on our own talents and our abilities.

This, in brief, is the picture that has helped lessen some of my uncertainties in this war-torn world and, with the understanding that decision is a personal matter and rests with each one of us, I offer it for what it may be worth to others in the Forest Service who may still be wondering where and how they can make their greatest contribution to the winning of the war we are all in -- "all the way."

Earle H. Clapp

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FORESTRY REGIMENT INFORMATION

By Jno. D. Guthrie, CCC, Washington Office

The Forest Service is receiving inquiries as to the possibility or plan to organize a forestry regiment similar to the 10th or 20th Regiments of Forestry Engineers of 1917-19. These letters have come from foresters outside and inside the Forest Service, from forestry students, and from men now in the armed forces.

It is possible that these forestry inquiries may have originated from the fact that some Canadians are now organized into forestry battalions and are cutting and sawing forests in Scotland and England. The natural reaction to these inquiries from foresters is -- just where would a forestry regiment find service? It may be that if and when a need for the services of foresters arises, they would more likely be attached as specialists to combat engineer battalions and regiments serving in this country or possibly elsewhere in the Western Hemisphere. It is estimated that probably at least 100 foresters are now officers in various branches of the new Army.

So far as the Forest Service now knows, or can find out, there is no proposal at present to organize a forestry regiment. It is known that at the end of the World War, Colonel Greeley, before his final discharge from the Army, spent some time preparing a plan for possible use of foresters or forestry engineers in any future emergency, should there be a need for their specialized services. This plan, like many other national defense plans, was merely a part of the War Department's policy of having on hand plans of preparedness for any possible national emergency. It is understood that this Greeley plan has been revised more than once since 1919.

In any case, it is heartening to know that some foresters are now in the Armed forces, and that many others are willing, even anxious, to serve the Nation in this period of emergency.

FORESTERS in ACTION

By David P. Godwin
Fire Control, Washington Office

The first official statement of the relation of the Forest Service to the world disturbance and to national defense was set forth in a letter dated November 14, 1939 from Mr. Silcox to the Assistant to the Secretary of Agriculture.

This very thoughtful letter harked back to World War I and sought to draw wisdom and guidance for the present from the experience and errors of the past. It pointed out that there would be pressure for overcutting valuable forest lands, that there would be forceful influence to overgraze the western livestock ranges and that there would be heavy demands on forest research, particularly in the matter of wood products. It foresaw the prompt need for sound emergency programs to meet these impacts and, in the national defense, to provide full but wise use of these resources and facilities.

Six weeks before the date of this first letter the military conquest of Poland had been completed. Thereafter ensued a period of six months of relative inaction on the battlefields of Europe -- referred to mistakenly as the "Phoney War."

Then in April 1940 Norway and Denmark were invaded -- in May Holland, Belgium and France. In the Forest Service, as in other American groups devoted to some form of public service, an uneasiness was coming upon us -- a stirring apprehension -- a feeling that our country would eventually become involved -- that the Forest Service should begin to do within its field all the things it could do. During May and June in the Washington Office a serious review and analysis was made of all our resources, facilities and skills, and as a result of this analysis Mr. Clapp sent to the field a comprehensive statement on the possible ways in which the Forest Service could contribute to the national defense.

We went to work. As the volume of these activities increased certain men in the Washington Office and in the Regions were detailed to the work -- part time or full. In some degree the duties of every member of the personnel are now affected by the war effort.

In Washington innumerable contacts were established with persons and committees in new and old agencies in order to channelize and expedite the many transactions. With the Army it meant the several branches of the General

Staff, the Air Corps, the Air Force Combat Command, the Signal Corps, the Engineer Corps, the Quartermaster Corps, the Parachute Battalions, the Chemical Warfare Service and others. With the Navy similar contacts were made. The Office of Production Management (now incorporated in the War Production Board) is an agency with which we have had a very large volume of business. Negotiations have been continuous with its divisions of Priorities, Mining and Minerals, Lumber Research and Statistics, Industrial Conservation, Containers, Pulp and Paper. In the Office of Price Administration there have been active working relations with the Lumber and the Pulp and Paper Divisions. With the Office of Civilian Defense we have had dealings with regard to forest and rural fire control, fire equipment, aircraft warning service, Civil Air Patrol, protection of defense facilities.

The tasks imposed by this expanded effort fell rather naturally into two categories; the field of forest products, involving research and production, and the field of the administrative, protection and engineering facilities of the Forest Service organization, centrally and in the Regions. The functions of coordination and liaison in the former were assigned to George Trayer and in the latter to me.

Perhaps the biggest of the jobs in the protection and management field and the most widespread geographically is the intensification of fire control. Of all the problems facing the fire control executive, the shortage of manpower is most serious. The CCC, once a mainstay in fire suppression, is day to day being reduced in strength. The pool of available personnel both for the trained positions of Forest Guards and for fire fighting labor is shrinking rapidly. Men of requisite ages, in all sections, are moving out into industrial employment and the military services. Most of them cannot be held without higher wage rates and assurances of longer periods of employment.

Every forest region is working feverishly to offset these losses. In many localities able-bodied citizens in their local communities are being recruited and trained to work in suppression and sometimes presuppression on call. This scheme of organized local cooperators is not new -- its revival and expansion will be a healthy achievement. In some regions students from colleges of forestry and engineering are being organized in suppression crews and intensively trained. From past experience it is known that they can turn out exceptionally effective work.

At the same time strenuous effort is being made to secure increased appropriations to intensify the protection of additional areas and defense facilities and to permit of general over-all strengthening of experienced fire control personnel and augmenting its equipment wherever needed.

Federal and State forestry participation in the Aircraft Warning Service, under the direction of the Air Force Combat Command, is, and can be to a larger degree, vitally important to defense. To date the Interceptor Commands have designated 372 Forest Service and State lookout stations on the West and East Coasts as key points in the master system, and the Secretary of War has requested the manning of these observation points on a three-shift, twenty-four hour watch. Commencing the day war was declared, 120 of these stations were put in operation. The balance await provision of Army funds.

During the last year the Forest Service has engaged in innumerable activities contributing to the war effort. In forwarding the "Food for Freedom" program, Range Management has enlisted the cooperation of hundreds of small cooperative livestock associations to further the plan of conservative stocking of ranges, increased marketings of livestock and closer culling of herds -- all designed to place both the industry and the range resource in best possible position for the long pull ahead. Also Forest Service personnel is working with national, State, and county war boards and directly with the A.A.A. in adapting results of research to its range conservation program. We are furnishing the War Department information on native plants suitable for camouflage purposes, and assisting local Army and Navy units in the selection of plants and in the use of suitable planting methods for air fields and other establishments in the arid country.

Other National Forest activities (covered in detail in other articles) have received high praise from the military services and war production. Within the engineering field specialized information concerning motorized and radio equipment has been made available, a program of military mapping is in progress, access roads to open up deposits of strategic minerals have been surveyed and constructed. Early demonstrations in the techniques and equipment of rough country parachute jumping aided the Army in launching of the Parachute Battalions. In the acquisition and use of land for varied military requirements the Forest Service in record time made available to the Army a number of areas suitable for camps and maneuver and proving grounds, aggregating about a half million acres.

Great efforts have been put forth by the Forest Service personnel -- even greater efforts will be called forth. There have been obstacles and discouragements. Some of us have encountered indifference to offered contributions and have been aware of overlappings and parallelings of function.

All of this is probably to be expected to some degree in most phases of a national effort rapidly expanding to such large proportions. But as we in the Forest Service go on with our war effort we will determinedly carry on these activities, and proceed to still greater ones -- with improved efficiency and deep satisfaction in increased contribution and accomplishment which are bound to come.

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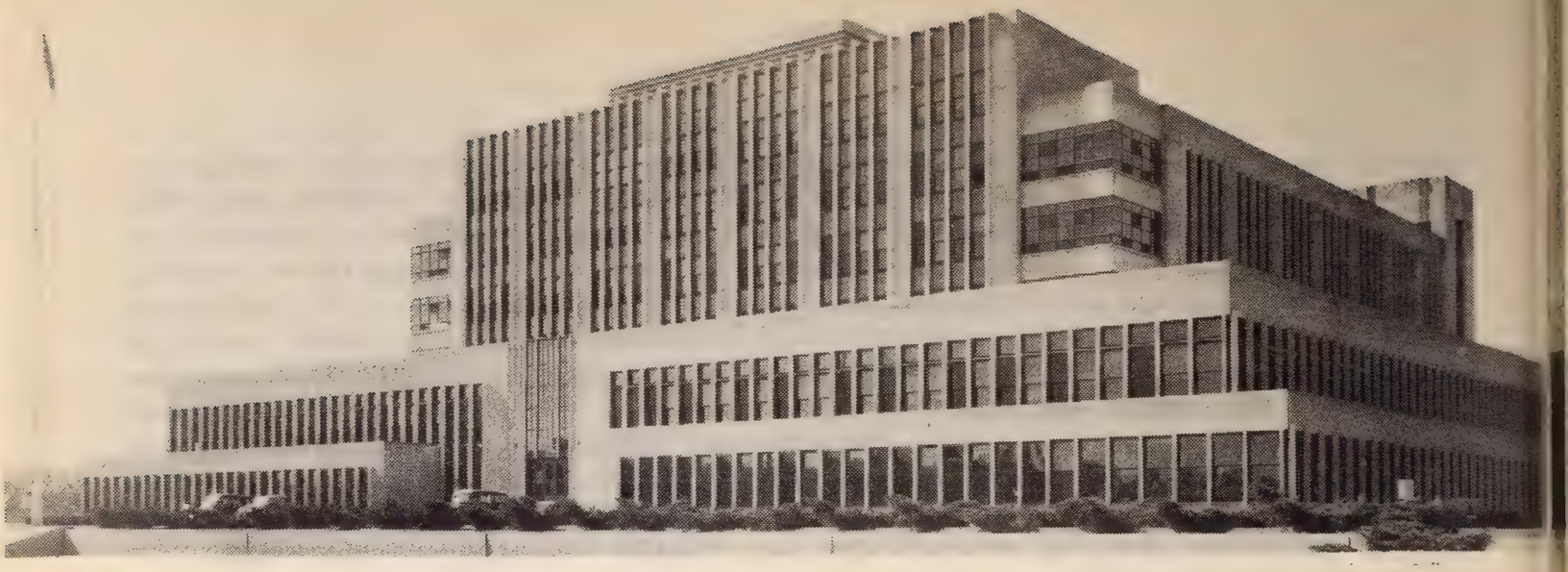
PERSONNEL RATINGS

A rule of thumb used by one agency for classifying personnel is said to be as follows:

1. Bright and energetic
2. Bright but lazy
3. Stupid but energetic
4. Stupid and lazy



DOUBLE DUTY AT THE MADISON LAB

By Donald G. Coleman, Information and Education, Forest Products Laboratory

"TIME IS SHORT," in letters a foot high -- this is the production battle cry greeting all who now enter the lobby of the Forest Products Laboratory.

In those three words is expressed today's stepped-up tempo of Laboratory activity. Brief, to the point, they have a meaning immeasurably bigger than the letters which spell them out. They tell the story of the change that has come over the Laboratory in the past year -- the past six months; a change which has seen the disappearance, "for the duration," of the daily groups of visitors who once filed through its corridors, gazing curiously at exhibits, peering into testing rooms and laboratories, listening to the explanatory words of guides.

Today those groups are gone. To visitors concerned with war problems the message speaks for itself. But, if its meaning is not at once clear, a receptionist politely explains that their business is to be transacted as swiftly as possible so that attention may be turned to other pressing problems.

To the men and women of the staff, that phrase has made itself felt in other ways. For them, time is not only short, it has become suddenly more precious than ever. The trained technicians, the chemists, engineers, and foresters who work here with wood have found their peacetime pursuits and programs interrupted, the direction of their research reshaped, their talents turned to new ends and purposes. War has lent a new significance to their tasks and the odors issuing from scores of chemical benches and the clank of testing machines give stark evidence that the staff has accepted its new assignments with a fire of enthusiasm.

Field trips, other than those necessary to the proper functioning of the Laboratory in its war role, have been drastically reduced. Requests for speakers at conventions, banquets, and similar gatherings are politely turned down.

The problems which now monopolize time and attention deal directly with the Nation's war effort. They are concerned with the development of military machines and plant; shipping and packaging of all sorts of war material from Lend-Lease cheese to airplanes and tanks; uses for lumber, plywood, glues, plastics, and other wood products, including "compreg" and "impreg," developed here; better charcoal for gas masks;

substitutes for Mediterranean cork; and so on, down a list that grows almost daily.

For instance: In August 1941, representatives of virtually all of America's foremost aircraft manufacturers gathered at the Laboratory to help lay out a program of research designed to assist them in the building of wood aircraft for training purposes. Metal shortages developing from the enormously expanded aircraft production program necessitated this move. Since then, more than 25 reports have been issued, based on Laboratory research, dealing with aircraft design, the use of lumber for various airplane parts, the cutting, selection, seasoning, and gluing of plywood and solid wood, the buckling of plywood, nail gluing, possible uses for "compreg" and "impreg," and other subjects. As quickly as research progress warrants, additional reports on these and other subjects will be prepared for the aircraft and other industries engaged in war production.

The Container Division of the Army Ordnance Department has commissioned the Laboratory's Container staff to revise and redesign its wood boxes and crates for the shipment of army materiel to the fighting zones abroad. A considerable expansion of the container staff has already resulted, and one building has been assigned to this research. Several field consultants are continually visiting Army arsenals, warehouses, supply depots, proving grounds, and shipping ports to supervise the packaging and shipping of the Nation's fighting sinews. The job of this army of the Laboratory is to insure that our tools of war will reach their destinations--sound, ready for instant unpacking and assembly.

Other needs of the Nation at war calling for attention involve the substitution of wood for other materials -- notably metals -- in construction, machinery, and a host of other consumer and producer goods not directly connected with war materials. One Laboratory staff man has been assigned to the Office of Production Management in Washington, D. C., to advise on such substitutions. Numerous requests stream directly to the Laboratory for similar advice from harried manufacturers who are trying to keep peacetime businesses afloat during the emergency with substitutes derived from wood. Prominent among these are manufacturers of plastics whose allotments of phenolic resins have been curtailed and who must find substitutes requiring less resin. The Laboratory's hydrolized wood plastic, requiring 30 to 50 percent less resin, is one answer to their problem.

The above is only a sketchy outline of some of the activities being undertaken at the Laboratory during the emergency. Many other phases of its work likewise deal directly with the Nation's wartime needs, both military and domestic. Doubtless, as new needs become felt, the scope of this work will expand further. Among the possibilities are the expanded use of wood alcohol, wood tar, and other derivatives; development of wood-burning gasogene engines, the broadening of species utilizable for paper and pulp production; more economical methods of burning wood for fuel, and so on.

Whatever the demands upon its time and energies, the Laboratory stands ready to do its utmost with the tasks assigned to it. For today there is really only one job, which the Lab shares with the rest of the Nation: to win the war.

FEDERAL ACQUISITION AND LAND USE FOR MILITARY PURPOSES

By L. F. Kneipp, Assistant Chief, Washington Office

One twelfth of the land area of the 48 States is now national-forest land; more than one-tenth is within national-forest boundaries. Therefore it is natural that the defense agencies, to satisfy some of their needs for land, should turn to the National Forests. In two cases a formal change in land status has been deemed necessary; in others rights of use have been regarded as adequate. To remove the conflict of private lands interspersed among the Federal holdings, the defense agencies in a number of cases have provided funds with which to acquire such lands, but asked the Forest Service to conduct all or part of the work of acquisition.

In June 1940, Congress authorized the transfer to the War Department of the 320,236 acres comprising the Choctawhatchee National Forest, Florida, for use in aerial maneuvers; the War Department requested the Forest Service to appraise, develop title data, and negotiate for 206 tracts of intermingled private land, aggregating 40,693 acres and valued at $285,910. This work now has been substantially accomplished.

In July 1940, Congress authorized the transfer to the War Department of 64,328 acres of national-forest land in the DeSoto National Forest, Mississippi, for use in connection with Camp Shelby, and the War Department requested the Forest Service to appraise, develop title data, and negotiate for 101 tracts totaling 9,952 acres and valued at $152,364. This work also has been accomplished.

In November 1940, the War Department requested the use of 19,534 acres of national-forest land in the Gasconade Division of the Mark Twain National Forest, Missouri, and asked the Forest Service to appraise, do title work, and negotiate for 53,476 acres of intermingled or adjoining private lands valued at $1,280,876. This job also has now been substantially accomplished. Fort Leonard Wood, which occupies the area, probably will be permanent and the status of the area probably will be changed by Act of Congress.

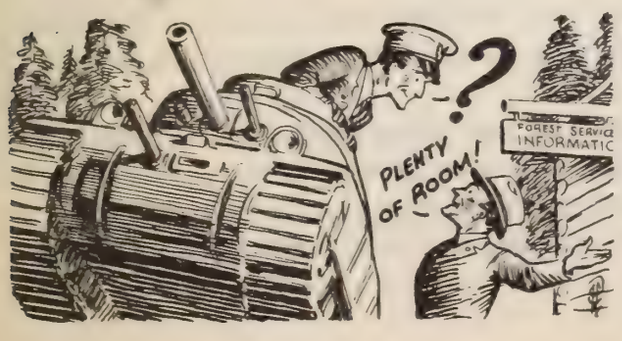
Later the War Department requested the use of about 60,000 acres of national-forest lands within five separate parts of the Kisatchie National Forest, Louisiana, in connection with Camp Polk, Camp Claiborne, Camp Livingstone, Leesville Artillery Range, and Air Corps School. Forest Service cooperation in the acquisition of the intermingled or related private lands was requested and extended. Thus far the Service has appraised 152 tracts, aggregating 33,902 acres and valued at $231,000. The ultimate extent of the work will depend upon final determination of the lands actually needed for military purposes.

More recently, the Navy Department has requested the use of a part of the Croatan National Forest, North Carolina, and a bill to change its status is now before Congress. Within the area only 465 acres thus far have been acquired for national-forest purposes, but the Navy Department has solicited the services of the Forest Service abstracting organization for the title work on 7,582 acres of related lands. That service is now being rendered.

To determine the feasibility of enlarging rifle ranges for Camp Oglethorpe, Georgia, the Forest Service has examined and reported upon three different areas of from 5,000 to 7,000 acres, but final area selection has not been made and actual acquisition has not yet been initiated.

Other areas made available to the War Department include 110,000 acres in the Los Padres National Forest, California; 7,177 acres in the Caribbean National Forest, Puerto Rico; 23,167 acres in the Ocala National Forest, Florida; 140 acres in the Sabine National Forest, Texas; and 100,000 acres in the Targhee and Gallatin National Forests, Idaho and Montana.

From time to time the defense agencies may need other areas of national-forest land; and the Forest Service has reported a number believed to be suitable for various defense purposes. A year or more ago, the Forest Service adopted and announced the principle that where national-forest lands were adapted to defense uses, and other equally or more suitable sites could not be obtained with equal promptness and economy, the Forest Service would cooperate in all practicable ways in effectuating such legislative changes in land status or grants of rights of occupancy as might be deemed necessary by the defense agency concerned. Its consideration of all requests for uses of national-forest lands by defense agencies has been governed by that principle.



"ACTION ON THE GROUND"

By Russell W. Beeson, War Activities, Region 5

While I was listening to the first reports coming in over the radio of the attack on Hawaii, my ten-year-old son was playing "touch football" in the street. When he came into the house a half hour later I asked him if he knew what was going on. His reply, without a trace of excitement, was "Yeah, we're at war with Japan." His acceptance of the news was a reflection of the attitude of Californians who have anticipated a war with Japan for several generations. Without doubt, Region 5 has been influenced by this expectation, which has resulted in caution and has induced preparedness. The following is a very brief summary of action that has been taken and future plans in so far as they can be foreseen at this time.

At the request of the Fourth Interceptor Command, the Forest Service had coordinated the organization of 130 Federal, State, and county lookouts as ground observation posts of the Aircraft Warning Service. A test maneuver was planned for December 11 to 16. As luck would have it, however, we had planned for immediate activation in case of emergency, and all the Interceptor Command had to do was telegraph the units concerned to put on the men. Forest administrators did a good job and most of the posts were manned on December 8.

Recently the Forest Service has been placed in direct administrative control of observation posts manned by forest agencies. During the coming summer the coverage will be enlarged to double the number of posts now in use. We are not only giving the Interceptor Command a lift but are also helping protect the forests from sabotage by airplane.

Organization for protection of public utilities was almost complete on December 7. During the fall some 200 areas around dams and powerhouses had been closed to public use. Forest Supervisors knew accurately the inadequacies in this organization and on December 7 placed men where they were needed. These men were later replaced, when the companies and the Army could complete organization for the protection of key utilities. Guards were placed at all powder houses and caches. Powder was moved as quickly as possible to central locations where 24-hour guard service is maintained.

It was a lucky break for California that war came in midwinter. Foresters need not be told of the dangers of fire sabotage or the disasters which might follow great burns. Organization to meet this emergency is rapidly taking shape. The California Fire Disaster Plan, inaugurated early in 1941, is combining the facilities of all fire services, urban, rural and mountain, into one unit. This organization will make it possible to concentrate all the resources of manpower and equipment wherever they may be needed. At present some of our tankers are on call for emergency service in cities which might be subjected to bombing. The Office of Civilian Defense has been furnished with reports describing the fire problem faced by Region 5. Also estimates of funds needed to meet emergency conditions have been furnished this agency. Needed reinforcements to the present organization will cost about 4.4 million dollars.

The Fire Disaster Plan is only a small part of the activities of the California State Council of Defense. Eight State committees deal with all problems of protection of people and resources. Forest Service men are on a majority of the county committees. All of our resources pertaining to housing and housekeeping equipment are included in the State inventory. If evacuation of coast cities should be required our camps and housekeeping equipment, beds, blankets, cooking outfits, tentage et cetera will help fill the need.

The California U.S.D.A. War Board is confronted with many tough problems in assisting farmers to reach 1942 production goals. In spite of difficulties, however, farmers are really "going to town" in production of milk, eggs, meats, fruits and vegetables for "Food for Freedom." Lumbermen are also doing their part. The California lumber quota of 2.2 billion board feet in 1942 has been reached in 1941. At the county level, where most of the work must be done, 38 Forest Officers are actively participating.

Region 5 has constructed firebreaks and roads and cooperated in fire control at several Army camps. Post-war planning also is receiving attention.

Space available has permitted only a bare mention of many activities. Of the future who can say? The situation reminds me of a picture often seen at a fire camp -- a CCC foreman carefully looking over his boys and their equipment then quietly saying with just a little pride creeping into his voice, "O.K. Boys -- Let's Go."

FOREST SERVICE JUMPER ENLISTED AS MARINE CORPS PARACHUTIST

A young Montanan who parachuted 18 times last summer into some of the State's worst forest fires has traded his "smoke jumping" outfit for a Marine Corps uniform. He is Bill Musgrove, 24, of White Sulphur Springs, for seven years a Forest Service employee, and the first Marine Corps parachutist to enlist in Montana.

To insure his enlistment as a high-diving leatherneck, the future soldier of the clouds brought a letter of recommendation from A. G. Lindh of Missoula, in charge of fire control for Region 1 of the U. S. Forest Service. The note to the recruiters stated Musgrove was an excellent jumper.

After doctors gave him their "O. K.", he remarked he wanted to get in on the "ground floor and see some action. I'd like to also get over there in the Pacific and jump down on some of those Japs."

-- *Montana Standard*, Butte, Montana

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MEN AND MOUNTAINS

The U. S. Board on Geographic Names has approved Region 6's proposal that a peak in the Siskiyou National Forest be named in honor of the late James H. Billingslea, Supervisor of the Siskiyou when he retired in 1932. The honor was well merited by outstanding service on the Lolo, Snoqualmie, Apache, Olympic and Siskiyou Forests. A graduate of the University of Washington, Billingslea served with distinction as a 2nd Lieutenant in the 10th Engineers.

The Board also has before it a recommendation, originating with Region 1, that the name Flint Mountain be officially applied to a previously unnamed point on the Continental Divide, on the boundary between the Lolo and Lewis and Clark National Forests. This would be in honor of the late Howard Flint, who died in 1935 while accompanying a scientific expedition down the Salmon River in Idaho. Mr. Flint was a pioneer in advocating the use of aircraft for fire fighting and other administrative purposes.

OFF FOR WAR DUTY

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Five Forest Service girls from the Washington Office who volunteered for special war work at Trinidad. After a short course of training with the War Department they anticipate being on their way.
Left to right: Lucile Montgomery (CCC); Lael McGindley (R); Peggy O'Neill (R); Ruby Bergren (I & E); and Louise Wright (CCC).

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FOREST FOLK WHO RETIRED IN FEBRUARY AND MARCH

Region 1. William A. Matthews, Administrative Assistant, Bitterroot Forest, Montana; after 15 years in the Service -- all on the Bitterroot.

Region 2. Paul D. Irwin, District Forest Ranger, San Juan Forest, Colorado; after 25 years in the Service -- all on the San Juan.

Region 6. Albert Baker, District Forest Ranger, Umatilla Forest, Oregon; after 36 years in the Service.

William O. Harriman, Forest Supervisor, Fremont Forest, Oregon; after 32 years in the Service.

ROADS, MAPS, AND MACHINES

By T. W. Norcross, Chief, Engineering, Washington Office

Mechanized warfare calls for engineering work, for engineers and for technicians in all fields. The Nation's war effort, which now goes far beyond defense, includes a long list of activities identical with or very similar to the regular work of the Engineering Division of the Forest Service.

In the aggregate, substantial assistance has been given to the War and Navy Departments, Office of Production Management, Office of Emergency Management, and other defense agencies. Designs of bridges and other structures have been furnished. Surveys and plans of relatively small areas have been made. Maps, photographs, and technical handbooks have been made available. A very large amount of photography including photostats, line prints and aerial pictures has been handled for defense agencies, particularly the Army and Office of Emergency Management.

Roads. Many of the minerals so urgently needed for war operations are located in the National Forests. Chrome, which formerly came from the Far East as ballast, now can be obtained from mines in remote sections of the Forests of the Northwest. Among other high priority minerals to be taken from the Forests are tungsten, lead, zinc, copper, manganese, magnesium, antimony, mercury, vanadium and even tin. Access to these mines involves a large amount of new road construction of the type which the Forest Service has been handling for many years. Experience in building thousands of miles insures speedy completion. The necessary trained organization and equipment are on hand for the work. Lack of funds is the principal reason why only three such access roads have been undertaken to date.

Maps. The War Department has found that, for certain strategic areas, large scale, highly accurate, topographic maps are required as soon as possible. Congress has approved an appropriation. Following the specifications and under the general direction and inspection of the War Department, the actual mapping will be performed by the Forest Service and four other Federal agencies. While the project is much smaller than originally proposed, the 4300 square miles (an area nearly as large as Connecticut) assigned to the Forest Service for mapping constitute an abnormally difficult job. It is planned to use in this work stereoplotting machines designed by members of the Forest Service.

Machines. Field mechanical shops have been thrown open for emergency use. CCC enrollees have been trained in equipment repair, in machine shop work and in drafting, so that they might serve in Federal or private plants manufacturing defense equipment. The design and data on the Forest Service portable power saw have been furnished to the Engineer Corps and investigated by it. A Sno-motor also developed by the Service at the Engineering Equipment Laboratory for hauling loads over deep snow has been purchased by the War Department.

Towers. For use at Army bombing fields, many standard Forest Service steel lookout towers have been purchased through the Service.

The work done serves as a fair sample of what could be accomplished on a much larger scale if and when requests are made.

TOTEMS

SUPERCHARGER

Wherever or whenever this war involves wood, George W. Trayer is almost sure to be in the picture either in front leading the procession or in the rear pushing so hard that the front ranks are speeded up more than they had intended. Sometimes he is on the side lines in a consulting capacity handing out meaty information as to why and how wood should be used or why it should not be used -- let the chips fall where they may.

George's ordinary job is Chief of the Division of Forest Products. His additional and special job is liaison man between the Forest Service and the War, Navy, and other Government Departments in matters involving the use of wood or wood products for war purposes. His fitness for both of his jobs rests on a solid foundation.

Born November 3, 1888 at Lansing, Iowa, where he attended grade and high school, George went on to the University of Wisconsin, receiving a B. S. degree in 1912. For two years after leaving school he was occupied as a surveyor and engineer on Mississippi River improvement work with the Army Engineers. Following the footsteps of his father, a building contractor, George then became Chief Engineer for the LaCrosse Steel & Construction Company at LaCrosse, Wisconsin. Two years of this, followed by a brief period of employment by the Anaconda Copper Mining Company at Anaconda, Montana, and he entered the Army -- serving two years with Co. F. 28th Engineers in the AEF in France -- where he saw real fighting first as a private and later as a First Lieutenant. On leaving the Army he broadened his knowledge of mathematics as a member of the faculty of the University of Wisconsin, adding to his previous degree that of Civil Engineer.

George joined the staff of the Forest Products Laboratory in 1920. And here, under the tutelage of John Newlin, his contributions dealing with wood as a structural material were many and varied. Some were simple straightforward statements about the best way to build a house, others dealt with such things as bolted joints and timber connectors and were intended for construction engineers. Still other especially outstanding contributions had to do with the theory and practice of the design of wood parts in aircraft. Here the atmosphere was more rarefied and resulted in publications of the National Advisory Committee for Aeronautics which dealt with such things as the elastic instability of members having sections common in aircraft construction, and the deflection of beams as affected by shear deformations.

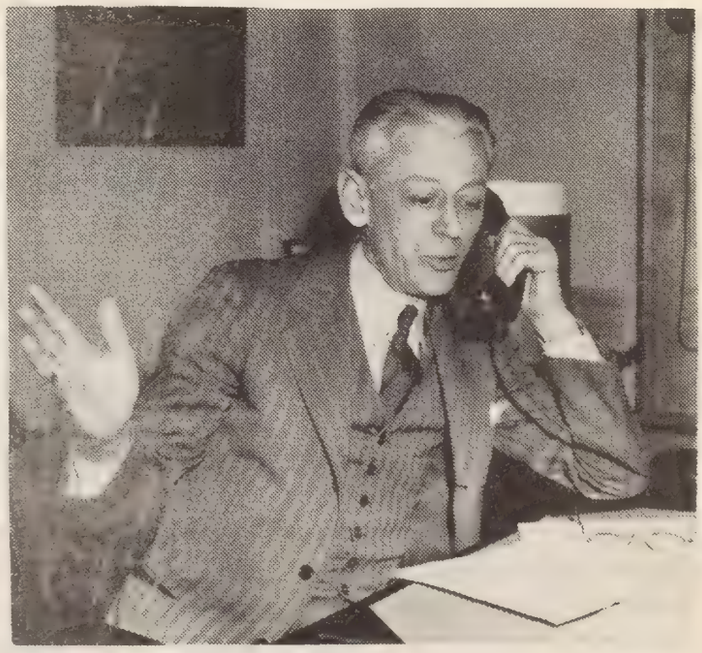
Since coming to Washington, some five years ago, George has become busier and busier and the calls for information about wood -- how much, how many, how and why -- have increased to such an extent that it was necessary to expand his office to include talent from the Laboratory, the Regions, and the Forest Experiment Stations. Inquiries range over a wide field: How much birch do we have that is suitable for veneer for aircraft plywood? Is the Government

justified in loaning money for the establishment of a sawmill in one of the West Indies to furnish lumber for our bases? Is laminated wood suitable for the keels of speed boats? How about cork-bark pine as a factor in the cork shortage? Should spiral-grain be considered in the inspection of army-cot parts? Best treatment of wood to retard the spread of fire due to incendiary bombs? How about increasing the use of mahogany to help our neighbors? How about cutting out the use of mahogany due to shortage in ship bottoms? And so on and so on.

Sometimes George and his cohorts have the answer pronto and sometimes they can get it in a short or long time and again there is no answer and never will be.

George's committee assignments take a lot of his time, including membership on: Subcommittee on Miscellaneous Materials and Accessories (National Advisory Committee for Aeronautics); Standards Council, American Standards Association; Department Patent Committee; Central Housing Committee on Research, Design, and Construction; Graduate School Committee, Department of Physical Science; Central Housing Committee on Prefabrication; Advisory Committee to the Pulp and Paper Section of O.P.M.; and Chairman, Working Committee on Agriculture's Production Goals for Forest Products.

A dynamo of force and energy, George is irrepressible and a high calibre persuader -- needing only a toehold of engineering data that he knows is sound to build a shining edifice for the good of mankind. Given only a couple of hundred thousand or maybe a million and he'll make said edifice real.



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Invariably along about October every fall, George gets a far away look in his eye. Visitors notice that his mind seems to wander and his gaze focuses on a picture of Mallard ducks that hangs on his office wall. Then suddenly George is gone -- decamped with his boyhood buddies. They pump out the family house boat; the party ends up in a Mississippi River swamp; and a thoroughly good time is had by all but the ducks. After George gets back and has had a chance to recover he is at least as good as new.

Trayer recently built and moved into a new home at 624 Oakland Terrace, Alexandria, Virginia. Short on sticks for the fireplace George dispatched his two sons, William 10 and George 12, to see what they could gather from the surrounding wooded areas and drag in. When the boys returned with a considerable quantity the wood expert took one look. "Green wood" he ejaculated. "My boys bring in green fire-wood!"

-- H. S. Betts, Forest Products,
Washington Office

EMERGENCY FIRE PROTECTION FOR FORESTS, FOREST INDUSTRY AND STRATEGIC DEFENSE FACILITIES ENDANGERED BY INFLAMMABLE FOREST COVER

By Chas. L. Tebbe, Forest Products, Washington Office

In the early part of October 1941, Major General L. D. Gasser, Assistant Director in Charge of Civilian Protection, Office of Civilian Defense called a meeting of federal land management agencies together with officials of the War and Navy Departments, Office of Production Management, and Federal Power Commission, to consider an emergency fire protection program for natural resources. General Gasser's proposal called for detailed requirements and plans to be submitted by various resource agencies and anticipated that Federal funds made available to OCD would be allocated to the resource agencies on the basis of need.

The resource protection job was classified under four major headings as follows, and responsibility for each was vested in appropriate functional groups or subcommittees:

1. Timber and related resources (Departments of Interior and Agriculture).

2. Minerals (Department of Interior).

3. Foodstuffs and storage (Department of Agriculture).

4. Water -- power and irrigation (Federal Power Commission with advisory members from Interior, Agriculture, and Corps of Engineers).

As a prerequisite to the securing of funds, stress was laid upon the need for a resource inventory and protection program limited strictly to resources and facilities important in the defense effort. A 10-day deadline for submission of data precluded anything but a Washington Office job.

The timber report presented resource data by States and where possible by forest survey or other units within States -- the commercial forest area, timber volume, number and output of forest industries, etc. Accompanying these data were two State maps, one showing the location of forest industry and the high, medium and low areas of lumber and pulp production. The other showed the area of Federal, State and private land protected and unprotected. Charts and tables showed area protected and unprotected, Federal, State and private funds currently available for fire protection with notation of additional sums required.

These data showed a fire control need for additional Federal funds in the amount of $16,364,000 for the remainder of F. Y. 1942 and 1943, of which $15,039,000 is for expenditure on National Forest and State and private lands. It is planned that the objective of emergency protection of forests, forest industry and strategic facilities located in or adjacent to forest areas will be reached by:

(a) An intensification and strengthening of present protection efforts in areas most critical to the defense program which are now under organized protection.

(b) Organizing special protection for defense industries, life lines and military areas located in forest areas not now protected.

(c) Maintenance of the present standard of protection on forest areas now under organized protection.

The estimates were forwarded to the Office of Civilian Defense in November 1941 and have since been combined with those of the other resource groups for submission by OCD to the Bureau of the Budget.

With an abnormally difficult fire season approaching, the need for strengthening fire control is acute and the Regions are submitting estimates covering the situation resulting from the declaration of war. If the OCD proposal lags, these may be presented in lieu thereof for consideration in the next deficiency appropriation.

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INGENUITY AND A NEW USE FOR THE UNIFORM

Two soldiers were sent out from one of the neighboring fields to test out some ammunition among which were tracer bullets. The soldiers picked out a high washed bank near the mouth of the Santa Ana River and, after getting permission from the representative of the land owner, proceeded to set up their machine gun. Upon completion of their task they noticed a fire burning above the area which they had been using as a target. One of the tracer bullets had ricocheted and started the fire in a patch of moss and duff.

The alarm was turned in by cooperators and the Ranger drove to the nearest point which was about one hundred and fifty yards from the reported fire. No fire was visible but instead, the Ranger saw a couple of men actively cavorting around the area where the fire was supposed to have been. Nothing was particularly strange about this except that two men were dancing around in their BVD's like a couple of fairy nymphs out of a storybook who had come to frolic on the woodland green. The Ranger not quite believing in fairy tales seized the handiest shovel with full expectations of entering into combat duty with a couple of screwballs. Upon arriving at the area only the smouldering remnants of a fire were visible and the two soldiers were climbing back into their fatigue clothes which they had been using in lieu of other hand tools to beat out the fire. This proves that the ingenuity of the American soldier is still something to be feared by all enemies.

-- L. A. Horton, "California Ranger" R-5

WAR AND THE WESTERN RANGE

By W. R. Chapline, Chief, Range Research, Washington Office

To western stockmen, the Forest Service -- and all other agencies concerned with grazing -- the business of providing adequate meat, wool and hide supplies for our part in the new world conflict, presents a real challenge. Sustained high production must be achieved and the mistakes of World War I not repeated.

Beef consumption per capita increased from 62.5 pounds in 1940 to 70.8 pounds in 1941. War-strength Army and Navy, heavy industry at full blast on planes, tanks, ships and guns, and additional money in the pockets of workers, all indicate higher beef consumption for the duration. Unless beef supplies are increased and ceilings clamped down, prices will rise higher.

As compared with the 1935-39 average of 575 million pounds, apparel wool used in United States mills in 1941 amounted to a billion pounds. Our 1941 record wool crop of 465 million pounds was less than half the need. Only about 150 million pounds of Australian wool are now in Government storage. In view of this, civilian consumption of wool has already been limited. Hide supplies are also drastically taxed to meet wartime needs for shoes and other leather goods.

High meat and wool prices, intensified demand, a liberal loan policy, and the patriotic urge for greater production, caused cattle in the 17 Western States to increase from 29 million head in 1915 to 34 million in 1919. Stock sheep moved from 26 to 27 million. In spite of greater forage production on irrigated lands, feed supplies fell far short of matching pyramided livestock numbers. And much of the resultant range depletion, accelerated erosion, and financial and social misfortunes is still uncorrected.

After downward adjustments during droughts numbers of livestock again, in recent years, have increased rapidly. Agricultural Marketing Service preliminary unpublished estimates show over 33 million cattle in the 17 Western States on January 1, 1942, practically equal to the World War I peak; and 40.5 million sheep and lambs, with 37 million stock sheep in 1941, far exceed 1919 numbers and are still increasing.

To meet prescribed marketing goals, 1942 cattle sales from the 11 Western States must increase approximately 17 percent over 1940 figures. Marketings from the 6 Plain States must be lifted approximately 40 percent. In setting these goals the Department visualizes not only additional reasonably priced meat and hide supplies needed, but a practical and planwise means of selling an animal for every calf produced, thus keeping numbers of livestock in reasonable balance with forage and feed as well. With present heavy stocking, one dry year would seriously decrease calf and lamb crops, reduce growth of animals and wool, and result in dangerous consequences.

Practice of the soundest management is the only possible answer. Effective balance between range forage, supplemental feed, and numbers of animals is vital. With high prices and ready takings of poor quality animals, herds can

be profitably culled to the advantage of both producer and consumer. And better animals, on full feed, under the best care and management will assure maximum per unit production.

In achievement of the needed livestock production the Forest Service is heavily counted on to play a vital role. Briefly summarized our expected contributions to this wartime range effort are as follows: (1) attainment and maintenance of the best possible range management on the National Forests (2) keeping range research moving and productive (3) making needed range information available promptly (4) encouraging reseeding wherever practicable (5) assisting other agencies whenever and wherever called upon, and (6) serving in every possible additional capacity toward keeping the range war production effort on an even and stable keel.

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THE SOUTH'S DUAL PURPOSE PINES

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Vital naval stores and pulpwood for Uncle Sam, cash for southern farmers from southern pines. This year's naval stores production goal has been stepped up 58 percent over 1941. Acid stimulation of freshly chipped slash pine faces has yielded increases up to 70 percent. Large scale testing, demonstration and education in the use of the technique is being cooperatively organized by the Southern Station and State and Private Forestry of Region 8 for Forest Service administration under the AAA program. Southern pines are also being relied on for a large share of the tremendous 1942 quota of pulpwood.

PACKAGING THE NATION'S FOOD

By A. E. Schneider, Forest Products, Washington Office

"For want of a nail a kingdom was lost!" The lesson contained in this lament finds specific application to more than one of today's war problems. In packaging the Nation's food, the lesson has particular significance. It is only natural to feel that the production and processing of foodstuffs are the two keystones in feeding the Nation and its friends. And there is no denying the importance of both phases of keeping bellies filled. But Colorado sugar beets would never leave Colorado, California oranges would never leave California, and Chicago meats would never leave Chicago packing plants were it not for sacks, boxes, crates, cartons, barrels, and other packages and packaging materials plus, of course, means of transportation.

The shipping container portion of this third phase of keeping people fed is much more than a casual aspect of our present all-out war effort. It resolves into assuring an adequate and well balanced supply of packaging materials for both domestic and Lend-Lease foodstuffs. The problem is magnified by the demands for packaging materials for products other than food. The problem as a whole, of course, has its source in the fact that 1942 plans for the production of both food and non-food items are generally greatly in excess of previous production ceilings.

To insure that needed packaging materials for foodstuffs would receive warranted attention, the Department, through its Office of Agricultural Defense Relations, set up a committee in each of the 22 major commodity fields to consider packaging needs. The Forest Service, through its Division of Forest Products, has worked with the Office of Agricultural Defense Relations in translating numbers of containers, by kinds and constructions, into terms of raw material requirements such as lumber, veneer, tight and slack barrel staves and headings, paperboard, paper, iron and steel for nails, rivets and hoops.

The quantities thus computed form a partial basis for determining total package material requirements and the demands to be made on the various packaging material industries during the current year. Used in conjunction with plant capacity data, which the Forest Service is also assisting to obtain, working guides are established which serve to indicate the degree to which needs may be satisfied with present plant capacity, and the direction in which the substitution of one packaging material for another could and should take place.

In addition, the Service, through the Forest Products Laboratory, continues to help shippers of food products in the container specification field. The watchword here is that every damaged can, broken barrel of powdered milk, and spoiled cheese caused by faulty packaging is a deadweight drag on effective production -- a drag all the more costly because it could have been avoided.

Clear recognition of a problem is the first essential step in its solution. The above described action is an indication that the Department has seen the magnitude of the food packaging -- as well as the food production -- problem. With present planning being followed by the indicated necessary action, future historians shall never be able truthfully to write "For want of a package the Nation was lost!"

FOREST 'MATERIEL' -- EXPECTATIONS AND REQUIREMENTS

By L. N. Ericksen, Forest Products, Washington Office

Forest products have already played a leading part in releasing manpower and industrial facilities for critical military production purposes; and, if indications are borne out, they will soon be indispensable in the direct military field. In addition to our own requirements, the United States is supplying large quantities of lumber, veneer, plywood and other timber items to all other nations with whom we are joined in the war effort.

So far there have been no serious shortages or difficulties in supplying the needed forest products. Except for construction lumber and timbers, the heavy demands as yet have not made themselves felt. For example, as the huge industrial production involved in the war program gets under way on a full scale basis there will be increasing, tremendous demands for box and crating material. It is estimated that 1942 requirements for this purpose alone will approximate 6.5 billion board feet -- half again as much as was used in 1940. In the case of pulp and paper products the 1942 demand for domestic pulpwood is expected to reach 15.8 million cords. This is more than twice the production of pulpwood in 1936 and a million and a half cords over 1941 production.

Use of wood in aircraft is also on a constant upward curve. Great Britain uses wood to a much greater extent in aircraft than does the United States. But its use is now being extended here and the combined needs of this country and its allies will undoubtedly require all the Sitka spruce of aircraft quality that can be produced; as well as large quantities of carefully culled and selected domestic hardwoods. High grade hardwoods are particularly in demand due to a sudden revived interest in wooden airplane propellers.

The small, fast "mosquito" boats which have recently received credit for successful attacks on Japanese naval vessels are of wood construction and mine sweepers, sub-chasers, assault boats, barges and pontoons are also being built of wood -- both solid and plywood. With the cutting off of teak imports will come an increasing demand for high quality domestic wood for ship decking; high grade material is already much in demand for ship planking.

Lumber production in 1940 was slightly less than 29 billion feet, the largest production since 1929. Estimated production for 1941 was 32.5 billion feet and estimated consumption 33 billion feet. The estimated consumption for 1942, which may change as the war program changes, is about 33.2 billion board feet. In making this estimate consideration was given to a greatly reduced residential building program, some reduction in farm building and greatly increased use for military and industrial (box and crate) purposes.

Production required to meet these consumption requirements is figured at about 33½ billion feet. To attain this goal the sawmill industry will have to run almost on a capacity basis. But difficulties in obtaining the needed tractors, tires, saws and other maintenance and repair parts present a serious problem and there is a real question as to whether complete capacity can be maintained. Comparable production problems also affect other items such as pulpwood. cooperage stock, veneer logs, piling

and poles. The tire situation particularly is of serious concern. With over 75 percent of all saw logs and probably 90 percent of pulpwood depending on motor trucks for at least a part of the haul the inability to get tires will be felt promptly and seriously. In order to assure sufficient quantities for more important military and related needs, it is entirely possible that due to lack of tires lumber use for non-essential purposes may have to be restricted.

Calls on the Forest Service for technical information relating to requirement and supply problems have been numerous. In most cases these requests have been handled by the Washington Office. But a number have been handled by securing information from the field; and a few in order to provide a current continuing picture of existing conditions have resulted in systematic follow-up by Forest Service field offices. One such instance in which an investigation is now under way has to do with Sitka spruce supplies in the Pacific Northwest. As the war program develops we will undoubtedly be called upon for this kind of service to a much greater extent and for this we should all be prepared.

FALLING GIANT SITKA SPRUCE

TONGASS NATIONAL FOREST—ALASKA

THIS PARTICULAR TREE MEASURED 11.1 FEET DBH, OUTSIDE THE BARK, WAS 202 FEET HIGH, AND CONTAINED 45 THOUSAND BOARD FEET.
SITKA SPRUCE IS NOW IN CRITICAL DEMAND FOR UNITED NATIONS AIRCRAFT PRODUCTION.

GUAYULE

Guayule (Parthenium argentatum) is a heavy woody shrub, cousin to the much publicized rubber producing rabbit bush (Chrysothamnus Sp.) which in time may play a large part in relieving the present rubber shortage brought on by the war. The range of the species extends from State of Zacatecas, Mexico, north on a wide belt into the Big Bend region of Texas, at elevation of 3000 to 7000 feet where the average annual rainfall is 10 to 15 inches. In its native region, guayule grows to a height of about two feet, with a dry weight of from one to two pounds, and a rubber content, in the best varieties, up to 22 percent of the dry weight. It is a hardy perennial with a small composite flower which produces abundant seed, except in dry years, averaging 600,000 to the pound and of very low fertility. The shrub can withstand long continued drought and a moderate amount of frost. It reproduces from seed, and occasionally from cuttings which, however, lack energy and vitality....

The first factory for the production of guayule rubber was established in Torreon, Mexico, in 1904, and later other factories were built at Cedros and Catorce. Actual business operations were first begun in California at Valley Center, San Diego County, in 1913, where 300 acres of experimental planting was done. Scarcity of available land so handicapped the work that in 1916 the experiments were moved to Continentalin southern Arizona, and continued there for six years, during which several thousand acres were planted, all under irrigation.

In the meantime a series of one-acre plantations were established in various parts of California, where the winter rains and long dry summer season were found to be particularly favorable to the growth of guayule. By 1931 there were 8000 acres of guayule in California, mostly in the Salinas Valley, where a large factory for the extraction of rubber had just started operation. Then came the slump and rubber prices dropped to 3¢ per pound. Extensive planting was discontinued but experiments have been continued to date.

During a period of about ten years there have been established and maintained a series of 53 experiment stations of from one to 5 acres each, extending from southern Texas across to California and up to the Pacific Coast region and the San Joaquin and Sacramento Valleys to Red Bluff. Thus it is known fairly accurately just what guayule will do in the various regions.

-- Extracts from "The Cultivation of Guayule," by W. B. McCallum, Chief Botanist, International Rubber Company in INDIA RUBBER WORLD.

The United States Traffic Commission in "Possibilities of Producing Rubber in the United States and Rubber Conservation," Sept. 1941, states: Mexico in 1942 produced about 7000 long tons (2240 pounds) of guayule rubber. This production is from wild guayule, and the output is restricted to prevent extinction of the shrub. Starting with a cost of 80¢ a pound of rubber when the plant is harvested at one year, the cost decreases for every year until the plant is seven years old, after which the carrying charges exceed the increment in value. At 4 years, the cost is 15¢ to 19¢ per pound, exclusive of interest on investment and cost of deresinating.

-- From "California Ranger," R-5

WOMEN'S CLUB LEADER PETITIONS CONGRESS TO ESTABLISH WOMEN'S CONSERVATION CORPS
"— AND KEEP THOSE SHOVELS FLYING!"
WIND
FOREST SERVICE TRAINS HIGH SCHOOL BOYS FOR FIRE FIGHTING
WAR REQUIREMENTS
FOREST SERVICE
PERSONNEL ORGANIZATION CHART
"HOW MANY CAN BE SPARED TO HELP AGENCIES IN DIRECT WAR EFFORTS?"
56 TREE PLANTING MACHINES, DEVELOPED BY FOREST SERVICE, GO INTO ACTION
PRAIRIE STATES FORESTRY PROJECT.
GUNNISON N.F.
DAVID EBERT, SON OF GUNNISON RANGER FREEZES HANDS AND FEET IN TREK TO SAVE ILL RANCHER.
FOREST SERVICE GUAYULE PROJECT
THERE'S RUBBER IN THEM THAR HILLS!
MARINES TEST FOREST SERVICE RADIO EQUIPMENT
FOREST SERVICE
NEWSMAP
DRAFTING SECTION
DIVISION OF ENGINEERING

CORRECTION
TIMBER PRODUCTION ESTIMATE FOR 1942
SHOULD HAVE BEEN 55,600,000,000 BD FT
INSTEAD OF 55,600,000,000 BD FT AS SHOWN

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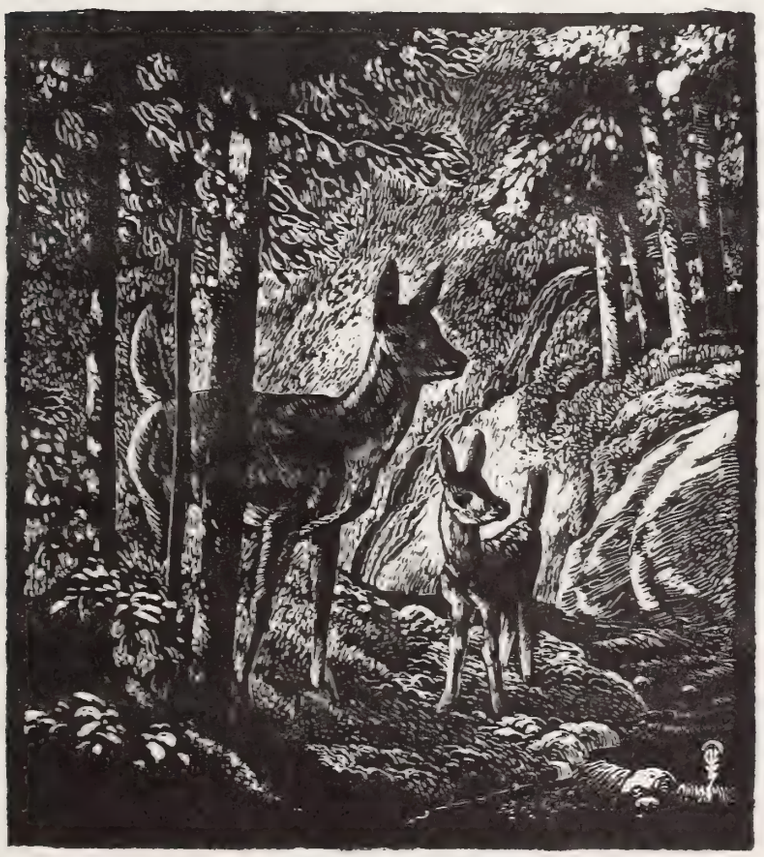

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"Two things now overshadow all else. One is that we are living in a world aflame. The other is that our future depends not only on the outcome of this titanic struggle but also on how promptly and how well we prepare for the future, including a post-war period that is certain to be critical. For this future, too, will require a productive agriculture, busy factories, a people at work, and plentiful supplies of raw materials."

-- 1941 Chief's Report.

UNITED STATES DEPARTMENT OF AGRICULTURE

Forest Service

THIS IS THE LAST ISSUE

This is the last issue of the Forest Service Bulletin until more normal times may permit its resumption.

As this issue went to press the Department requested that all house organs be suspended for the duration.

(Confidential - Service)

Among Ourselves

By James A. Egan and Owen L. Aydelott, Training, Washington Office

A recent personnel case has brought into sharp focus the question of accountability and responsibility for action taken on individual projects such as large and costly forest fires.

Over a long period of years, the feeling has been built up that the District Ranger is responsible for everything which happens on his district. This concept of the Ranger's duties is not formally a Service-wide policy, but can be found by implication or positive statement in the various regional fire plans. Officials in Washington are not certain when or how this policy originated. Also, as it is stated in the Region One "Fireman's Guide," a number now seriously question the advisability of following it to the extent indicated. The Reference follows:

> The direct burden of fire control falls on the District Ranger. He is responsible on a certain allotted area for all lines of protective work, prevention, detection, and control; as well as for all administrative and other work on his district.

But suppose the Ranger is new to the rank or without adequate fire experience and finds himself in charge of a large and dangerous fire. He is aware of the policy that a Ranger is responsible for *all* fire control activities on his district. Being proud and knowing that a stigma will attach if he asks for assistance in managing the situation, he grits his teeth and takes action. The Supervisor or one of his staff appears on the scene. The Ranger would like to ask for assistance but fears the result of such a showing of weakness (?). Subsequent events tend to prove that the action taken by the young Ranger allowed the fire to escape.

Under the policy as stated in Region One's "Fireman's Guide," the Ranger would probably be held responsible. It is felt that here is where further clarification or a change of policy should be made.

If the Ranger was an experienced fire-fighter and was considered to be fully capable of handling the fire situation on his district he justly could be held accountable for errors in judgment or mismanagement. However, in the case cited above, the Ranger was relatively inexperienced and as such should not be held responsible. Fighting a forest fire is not a production job but rather a dangerous, disagreeable, and costly

project. It is very similar to a military campaign and as such the chief objective is to destroy the fire in one instance and the enemy in the other in the shortest possible time commensurate with the least cost in men, money, and materials. This calls for the best leadership obtainable and it is proposed that the most capable man present be made fire chief, whether this man is the Ranger, the Fire Assistant, the Supervisor, or an experienced Guard or Foreman.

If the Ranger is new on the district or has had but little actual fire experience it is unfair both to the man and to the Service to expect him to take over a bad situation. If he is required to do so the superior officer should be held accountable for any mistakes made. On this point the Secretary of Agriculture says:

> 'It is further a responsibility of administrative officers to avoid, when possible, delegating authority and responsibility in advance of training. Where this is done, the superior so delegating, and not the employee, should be held accountable for mistakes.
>
> --Page 4 "Employee Training Policy," Office of Personnel, 1939)

It is not contended that subordinate officials should be exonerated. It is maintained that superior officers should be held responsible for the results of action taken by inadequately trained or misplaced subordinates when these ranking officials are on the scene of action or are aware of existing conditions. Superior officers should also be held responsible for keeping abreast of conditions in areas for which they are responsible. As written on page (7-A) of the old National Forest Manual they should know what their direct subordinates *"are* doing, what they *are not* doing, and *why."*

AN ECHO AND ITS MEANING

By E. E. Carter, Chief, Timber Management, Washington Office

Recently, one of our good friends in the Bureau of Entomology and Plant Quarantine gave us some more help by investigating the cause of the defoliation of some considerable areas of small broadleaf trees, partly so "offsite" as deserving to be described as "brush." His general attitude was entirely friendly. All unconsciously, he gave us, in his report, something to think about more than his excellent description of the defoliation and his advice for subsequent action. "Ten years ago, *when the Forest Service was primarily interested in growing commercial timber"* the defoliation would have been considered beneficial, because it hastened the transition from a cover type of brush to a stand of conifers of good promise for the future use of their wood. The inference is that now the loss of some autumn coloring dominates our thought.

Do we deserve this unconscious accusation that in our enthusiasm for multiple use we have lost interest in timber growing? This man reflected the attitude of the Forest Officers who accompanied him on his trip, and of those with whom he has had other occasions to discuss our current work. Are we merely custodians with our primary interest in keeping things as they are? If not, do we talk that way in our contacts with others instead of pointing out the benefits, or losses, resulting from natural forces? We certainly like to show off our planting, our timber stand improvement work, our recreational structures, our range improvements, our fire control improvements, and our roads. Are we left cold when a natural process hastens a stand improvement? Do we have to spend Government money in getting something before we recognize it as worth while?

A TRAINING NEED NOW A DEMAND

By Fred Stell, CCC, Washington Office

One of the most important transitions of the Forest Service during recent years has been from use of hand labor and horses to the use of mechanized equipment. Effects of the suddenness with which this change broke upon us are far reaching.

Many of our personnel were caught totally unprepared -- uneducated and untrained in the proper use and maintenance of the new machines with which they had to work. The big turning point coincided with the tremendous emergency work program with the result that field officers, overburdened with administrative responsibilities, had little chance to pick up the mechanical education and training they lacked.

One of the first requisites of an efficient early-day field man was knowledge and training in the care and use of a horse. The same requisite should now apply to the machines that have displaced the horse. But many field officers are still unable to manage and operate the equipment assigned to them.

Horses were mostly privately owned and represented a comparatively small investment. Improper care and use resulted in a small personal loss. By contrast, automotive equipment now in use is public property in which there is a heavy public investment. The obligation of Forest Officers to educate and train themselves so as to get the greatest possible use and life out of assigned equipment is therefore vastly increased.

It may be argued that the automotive equipment field is highly technical and that administrative and supervisory field officers should depend on specially trained mechanics and operators to handle this part of their work. And insofar as it is necessary to effect major repairs or to make complicated mechanical adjustments there is obviously a certain amount of good logic in that argument. But regardless of that, the responsibility of field officers to protect the Government investment is still dominant and inescapable.

It is not the technically involved adjustments and replacements that make the biggest difference. What really counts are the few obvious fundamentals which are just a matter of plain common sense. Certainly anyone should know that the function of bolts, nuts, screws and rivets is to bind various parts of the machine together -- and that they should be kept continuously fast and tight. And anyone should know that grease and oil are the constituents which decrease friction and prevent wear on moving parts -- and that these constituents should be checked and changed at regular intervals. That dirt and grit should not be allowed to mix with lubricants is also self-evident.

Individual and group instruction of field officers in the proper use and maintenance of automotive equipment assigned them has resulted in considerable progress. A more active interest and an awakened pride in the condition of equipment can be noted. But in practically every Region far more of this type of training is particularly needed. And now with the war requiring that we obtain the very last iota of use and life from our equipment, there is a real need for this type of training. For effecting a direct cash saving and for assuring a stock of efficiently used equipment during the years when almost certainly no new equipment will be available, no greater training opportunity exists.

REVIVAL OF CHARCOAL BURNING IN SOUTHERN OHIO

By F. J. Miller, Senior Agricultural Aid, Wayne

A hundred years ago and continuing to some extent through the rest of the nineteenth century, open pit charcoal burning was an accessory industry to the small blast furnaces that developed in various parts of the United States where deposits of iron ore were discovered. One of the most famous of these furnace districts was the Hanging Rock Region of Ohio and Kentucky with its center at Ironton, Ohio.

Charcoal burning in that region largely went out with the furnaces. Old Jefferson, the last one to operate, shut off the blast the day after Christmas, 1916. The timber areas, about 10,000 acres to a furnace (estimating about 500 acres a year and cutting once in twenty years), were devoted to other purposes or allowed to reforest. The colliers and woodsmen who knew the art largely disappeared.

But now once more, in many hollows of Southern Ohio wood smoke of the charcoal burners lies faintly fragrant on the breeze. Charcoal is again in demand. Some goes for chemical and metallurgical purposes — such as in case hardening guns and gun mountings. Some goes into water purification and filtration; and some into gas masks. Some is ground for chicken and stock feed. Military demands and increases in price (now 16¢ per 20 pound bushel at railroad sidings) have coaxed out the marginal producers who merely make wages and get nothing for material.

Except for substituting trucks for teams of oxen, the open pit method of making charcoal appears to have changed very little. Men plying the trade are still known as colliers. They are trained in the work and follow it from year to year. And they are a hardy lot -- enduring the heat and dust of the pits and adversities of the elements twenty-four hours a day. The charcoal hearth is made by leveling a circular area 40 to 50 feet in diameter. The chosen location is generally in the valley along a stream where water is available for quenching the freshly drawn charcoal. Wood is hauled to the hearth and small wood known as lap-wood is

(Photo. No. 372846. Taken by B. W. Muir, W.O.)

placed in a ring around the edge. A roadway is reserved across the center. The heavier or coarser wood is then set on end against this rick of lap-wood until all the interior space except the roadway is filled. A chimney is built in the center of the pit by cribbing wood. This is filled with chips and other kindling for starting the fire. Against the chimney a base wood is set on end, leaning inward at a slight angle and packed as closely as possible. A second tier is placed on the first and the top is rounded over with lap-wood. The entire mound of wood is then covered with leaves and this in turn is covered with a few inches of earth or charcoal dust, well compacted to prevent circulation of air and erosion by rains. A pit of average size contains from 35 to 45 cords which makes a mound-shaped mass 35 to 40 feet in diameter and 10 to 12 feet high.

The charring process is commenced by starting a fire at the opening in the center of the pit. After the kindling is well ignited, the cavity is filled with wood and brands and then covered with leaves and dirt, the same as the rest of the covering of the pit. Sufficient air is admitted through small vent-holes to cause only a charring of the wood with the loss of the volatile components. The rate of burning and migration of the fire to the sides and to the bottom of the pit is controlled by the system of air vents placed as the collier sees fit. Through such means the wood is converted into charcoal.

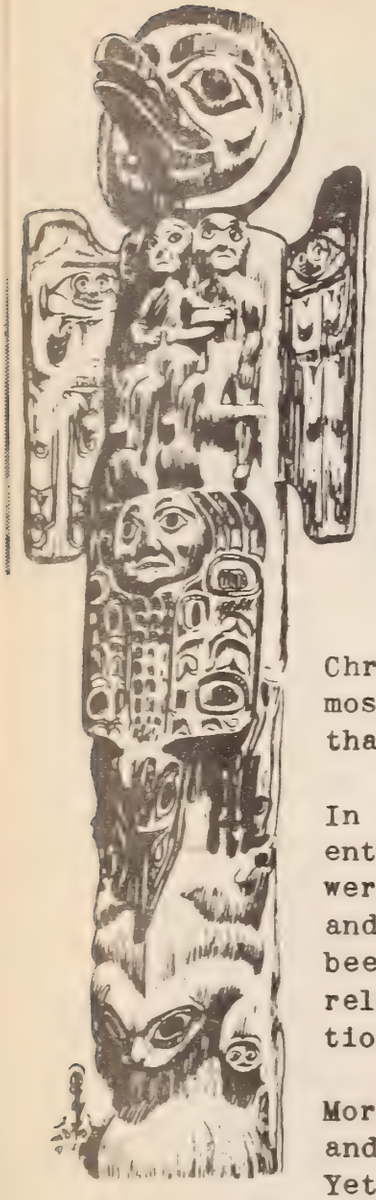
After the charring process has been completed, which requires from 12 to 20 days, the charcoal is drawn from the pit, a small quantity at a time and quenched with water. Care is taken to keep that remaining in the pit so covered and smothered as to prevent undue oxidation. This charcoal is then loaded into trucks and transported to the railhead. A bushel of charcoal contains 2688 cubic inches and with average stock weighs 20 pounds. One cord of sound wood yields from 30 to 40 bushels of charcoal.

The harder woods like oak, hickory, and sugar maple make a heavier and harder charcoal than the softer woods as poplar, linden and chestnut. The firm, compact charcoal is more desired than the light, spongy kind because it crushes less under weight of the stock and because it carries farther down in the furnace when used in smelting iron.

The time of firing a pit varies with the practice of the individual collier, with the size of the pit, with the dryness of the wood, with weather conditions and with other incidental factors. The older practice was to hold the fire for about 20 days, but the later custom is to push the firing more rapidly, completing the pit in about 12 days.

Under common practice the labor equivalent of one man for four or five days is necessary to draw a pit of charcoal. The work cannot be rushed. Only a small amount of charcoal is drawn at a time and the opening of the pit sealed rapidly as the exposed fuel soon begins to ignite and burn. Usually two men work at the task.

The worst indictment of the business as it is now conducted is that it encourages indiscriminate clearing of all timber on land that should be devoted to permanent forestry. If the material selected were all unfit trees and branches, the small charcoal industry would be a valuable adjunct to good forestry.



TOTEMS

SACHEMS EMERITUS

Hire out to Uncle Sam as manager of from half a million to 170 million acres of wild, public forest or range land. Push your hat back for a good long look, sizing her up. Figure out how you're going to get the most out of it for the greatest number of people in the long run -- with the people in general and the neighbors in particular clamoring at every turn to get you crossed up. Then, once you've got your course set and wagon hitched to your star, pull your hat down firmly for the journey, and fly at it.

Chris Rachford, Roy Headley, and C-J Buck have devoted the prime and most productive years of their respective lifetimes to doing just that. They started from scratch and wound up at the top.

In the days when they began their careers in the Forest Service, enthusiastic men of vision and determination in the new organization were at a premium. There was more room at the top than at the bottom and they got there fast. Most of their energies and efforts have been directed from key policy making positions. This makes their relation to the Forest Service -- to its growth, solidarity, reputation, progress and present status -- that much more significant.

More opposite individualities than those represented by Chris, Roy, and C-J can hardly be imagined. Each is an outstanding personality. Yet the success of each in the final accounting is singly indistinguishable one from another. Their separate accomplishments, singularly conspicuous as they may be, are nonetheless lost in a much greater common accomplishment which will live on indefinitely. The status of the National Forests and the Forest Service as it compares today with what it was when they entered the picture can in a large part be accredited to their achievement.

No one of the three is a Hercules who has hoisted and made fast more logs in the building than another. During their accumulated 109 years of service the hands of all three grew hard from actual doing and each accumulated his share of callouses in the best Forest Service tradition. But for the most part the execution of details has not been their main function.

Theirs has been to hit the brush and find a way or push a way through it for those with the blueprints to follow after. When the going has been easy they've hopped to it making it pay to the fullest and neither asking nor expecting any personal aggrandizement. More often when the going has been tough in the extreme they've ploughed in bearing the brunt and taking the punishment with the same selfless equanimity. Given a job to do, they've done it, magna cum laude. They've kept the path open.

CHRISTOPHER E. RACHFORD, Assistant Chief

Born at Fort Bidwell, Calif., July 19, 1880
Education: Public Schools
Entered the Service as a Forest Guard in June 1905. Passing rapidly through the intervening grades in the National Forest work, he was made Forest Supervisor in January 1908. In May 1915 he was made Assistant Regional Forester in charge of Grazing in R-5. He was transferred to the Washington Office as assistant in the Office of Range Management in December 1920, and in July 1928 was made Assistant Chief in charge of Range Management. In April 1936 he was made Assistant Chief, Staff, as expert adviser to the Chief, particularly on cooperative relationships.

ROY HEADLEY, Chief, Div. of Fire Control

Born in Sangamon County, Ill., Dec. 21, 1878
Education: Graduated from Grammar Schools of Moscow, Idaho, and attended Preparatory School of the University of Idaho for two years.
Entered the Service as Deputy Forest Ranger in February 1907; followed in succession by positions as Deputy Forest Supervisor, Forest Supervisor, assistant in Operation R-5, and in July 1910 made Assistant Regional Forester in charge of Operation R-5. In December 1919 he was transferred to the Washington Office as Assistant Forester in charge of Operation. In October 1935 he became Chief of the Division of Fire Control.

CLARENCE J. BUCK, Chief, Forest Communities

Born at Stockbridge, Mass., Oct. 16, 1881.
Education: Graduate of Williams College, B.A.
Yale Forest School, M.F.
Entered Service in July 1905 as Student Assistant and served in professional forest work in the East for 2½ years; followed in succession by positions as Deputy Forest Supervisor, Forest Supervisor, Assistant Chief of Operation in R-6, Assistant Regional Forester in charge of the Office of Lands, R-6, and Regional Forester March 1930. He was transferred to the Washington Office in April 1939, and has served as Chief, Forest Communities, since July 1940.

A RESEARCH CHALLENGE IN NAVAL STORES

By Kenneth P. Davis, Forest Management Research, Washington Office

Since Colonial days when the first tar and pitch from North Carolina longleaf pine helped keep England's wooden ships afloat, the United States has been the world's largest producer of naval stores. In recent years, the "Turpentine Belt" from the Carolinas to Texas has turned out approximately 60 percent of the total world production of turpentine and rosin.

When World War II started and many foreign markets were cut off, the industry faced surplus production. But as the American war effort got under way, this surplus was promptly turned into a deficit of serious proportions. Turpentine and rosin are strategic materials both on the combat line and behind it. They are used for various military purposes and for a long list of industrial products including paints, paper, varnish, printing ink, synthetic camphor, adhesives, plastics, and pharmaceuticals. Needs have been further increased because of imports cut off from abroad. For example, the Japanese have a monopoly on natural camphor, and turpentine is required in the manufacture of synthetic camphor. Similarly, vegetable fats and oils from the Philippines are cut off, making additional demands for rosin used in soap making.

To meet essential needs for military and industrial uses the Department of Agriculture has twice upped the 1942 production goal which now stands at 450,000 barrels of turpentine and 1,500,000 barrels of rosin, an increase of 58 percent over 1941.

Naval stores producers are frankly skeptical if the 1942 goal can be met by present methods because of a serious shortage of labor, increasing difficulty of getting supplies and equipment to start new operations, and the limited supply of available naval stores timber. A most logical solution would be somehow to increase the yield of naval stores per tree. This would reduce production costs, lessen the pressure to chip additional timber, perhaps destructively in an attempt to get immediately high yields, and help in meeting the production goal.

Here is where our research comes in, as fortunately a way has been found that offers large promise in increasing yields -- by daubing certain chemicals on the freshly chipped streak to increase the gum flow. The idea apparently originated in Germany in about 1933 and has received considerable attention there and in Russia. Because of the apparent possibilities for chemical treatment in this country, the Southern Station, in cooperation with the Bureau of Agricultural Chemistry and Engineering, made tests, beginning in 1936, using a number of reagents and streak heights. So far, a moderately strong solution of sulfuric acid has been the most effective, increasing yields from slash pine around 70 percent with no apparent detriment to the tree.

With this promising lead, plans are being pushed to test the method on a somewhat larger scale. Use of the treatment has been written into the current naval stores Agricultural Conservation program of the AAA, and in cooperation with the State and Private Division in Region 8 administering

the program, a series of commercial-scale pilot plant tests are being organized. Ted Liefeld of the Southern Station is generally experting this work.

But the problem is by no means all neatly solved. For some unexplained reason, the treatment is not effective on longleaf pine, which furnishes about 40 percent of all the working faces and is the more widely distributed of the naval stores species. There is a lot of uncertainty and speculation as to the exact effect of the acid on the tree cells and the tree, of the effect of wounding (chipping), and just how and where the gum is formed in the tree. There are also questions as to what effect the acid, particularly the stronger solutions, has on the gum. Until a workable method of increasing longleaf yields has been developed and these complex physiological and chemical questions answered, the method cannot be applied with confidence and its full advantage realized.

Acid Application on Slash Pine

The tough job of trying to answer these technical questions has been handed to Nick Mirov of the Genetics staff, California Station, who has been detailed to the project at Lake City, Florida. Assisting him will be Al Snow, also in forest genetics work, from the Northeastern Station. All naval stores research work is under the general supervision of Jack Curry, in charge of forest management work at the Southern Station.

The naval stores situation thus presents a research challenge and an opportunity to make a large and direct contribution to the war effort.

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"If I have forged one small link in the chain of good will, it has come about through 'understanding.' Good will of course is very desirable but it has a spiritual quality that makes it rather elusive. One makes pretty speeches about it. It is like happiness -- to attain it one must create; to keep it, one must spread it."

-- Blanca Lazo Steinman, of the Waldorf, Astoria Hotel, in "The Pan American" for January 1942.

DEMAND FOR PINE KNOTS INCREASING

Most of the Coastal Plains forests have marketed pine knots and stumps in the past few years from which turpentine, pine tar, and rosin are distilled. This business has been sporadic in the past but is booming now as pine tar has become an essential war material. New demands for pine tar, used in building wooden boats, have developed. Also pine tar is essential in the manufacture of rubber tires and this latter use requires the greatest quantity of the tar.

Twelve to fifteen cars of this rich wood is moving off from the Kisatchie each week and over a thousand dollars a month in wages is being paid out to local labor. Stumpage is rather low on this product, but 50 to 75 cents per acre from $1.50 per acre land is a fair return.

A process for making pine tar locally by the simple method of putting the wood in piles, covering with dirt and charcoaling the wood, is being followed by one local resident. A trench under the wood pile carries the tar to a pit in the ground from where it is ladled into barrels. The charcoal is sold at 40 cents per pit, and 30 to 40 barrels of tar are secured from a 30-cord pile of wood. The tar secured by this process is said to command a premium price on the market, but, of course, there is a loss of the products that can only be saved by distillation.

-- W. R. Paddock, "Dixie Ranger" R-8

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FOREST SERVICE READING MATTER FOR THE HOSPITALS

Forest Officers looking for new fields to cultivate and sow with seeds of Fire Prevention should try the hospitals -- Army, Navy, and civilian. People in bed have time to read, and I have found a response to a copy of "New Forest Frontiers" or a folder map that was most encouraging.

-- C. S. Robinson, "California Ranger," R-5

PRODUCTION IN '76

In the town of Mansfield, Connecticut, still stands one of the oldest sawmills in the United States. In fact, it is what is known as an "up and down" mill -- not in the sense that it operates today and shuts down tomorrow, but because the saw resembles an ordinary crosscut fitted into a movable frame resembling a window sash, and runs up and down. The mill is driven by waterpower. Claim is made that this mill was in operation long before the Revolutionary War, that it sawed ship timbers for America during the War of 1812, and was going strong during the period of the Civil War. We investigated this claim and found that Mason's Mill also had a part in the sawing of hurricane timber, although the volume turned out was largely in the nature of a "token," and was sawn only to prove that the old landmark could still produce.

The mill is owned by Mason Parker, whose great grandfather was the original owner. In addition to antique lumbering equipment, the old structure houses a machine for sawing out Ox Yokes, one for sawing shingles, and a lathe capable of handling timbers in excess of twenty feet in length.

On the day the mill was visited, the present owner, Mr. Parker, broke the ice off the waterwheel with an iron bar, opened the gate, put the saw machinery in gear, and sliced a two inch plank off a pile bottom. But we went to lunch while this operation was going on -- which will give you some idea on how long it used to take the old "up and down" models to saw lumber as compared with the modern type of sawmill.

-- "New England News," NETSA

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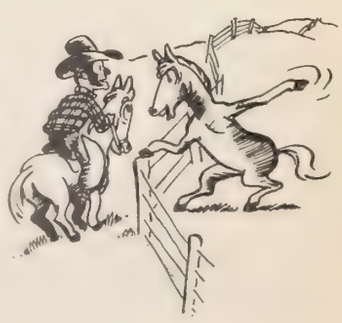
HORSE SENSE



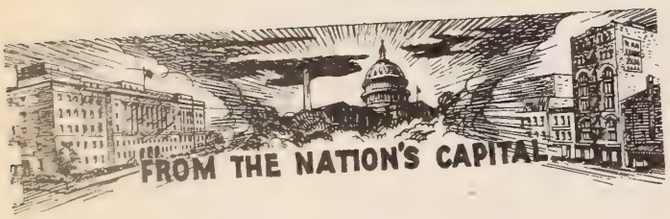
One spring several years ago, I was riding along a drift fence checking up on its condition. The fence was built across rolling grass country so that one was alternately on a ridge and then in a shallow canyon. Presently I noticed a brown horse running toward me and making quite a fuss. He came straight along the fence, squealing and screaming like mad. A few yards from me and my horse he slid to a halt, whirled, nickered, and ran back a short distance in the direction from which he came. The horse kept this up, leading me along the drift fence for about a mile, where in the bottom of a draw I found that Crickett, a pensioned cow horse, renowned for his ability to work cattle, had one front foot caught in the wire. The brown horse nuzzled old Crickett, as if to tell him to stand still while I freed him and when the old fellow was loose led him away as gently as a mare would her foal.

-- W. B. Hall, "Six Twenty Six," R-6

Forest Folks

RETIREMENTS

These scrolls bearing the signatures of scores of associates were presented March 12 to the five Washington Office folks retiring this spring. Although prepared as personal messages, these tributes have Service-wide interest. Other scrolls were presented by each Region and the Forest Products Laboratory to C. E. Rachford, Roy Headley, and C. J. Buck.



To C. E. Rachford:

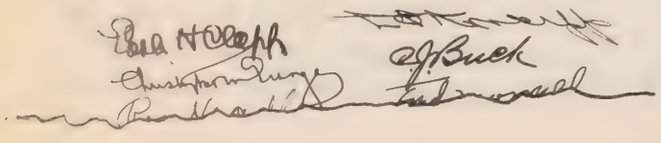
Prelude (1880-1904): Born to the bit and the bridle and nurtured in the brawn. Scion of a rugged land and son of the open air. Sagebrush and sand; song, sweat, and saddle leather!

Pledge (1905): Senses, as yet but dimly, the destructive processes being wrought about him; impelled by an inspiration to give reality to vision, makes decision that is to alter the whole course of his career -- becomes a Forest Ranger.

Labor (1905-1942): Unassisted by guiding precedent, but with the respect and confidence of local people, translates into local idiom and action the theory and philosophy of a great new national movement -- Forestry. To wider fields of responsibility successively as Forest Supervisor, Regional and National Chief of Grazing, Assistant Chief of the Forest Service and Advisor to the Chief. Undaunted by the opposition of precedent, apathy, and inertia; unstinted expenditure of energy and talent in driving, ever driving, for the recognition of new purposes and application of new ideas. And adding to it all the touch of the master hand in shrewd diplomacy; the exercise of superlative talent for negotiation and adjustment; patient and sympathetic understanding, sound judgment, and sage advice.

Siesta (1942): Light should be his heart and gay his spirit for now he goes to enjoy the fruits of his labor, to sunny Southern California, to the trees and the flowers of his own home on his own land; with leisure for meditation and with opportunity for participation in citizen affairs. For him and Mrs. Rachford the years ahead should be many and full of pleasant days.

Tribute (March 31, 1942): When a man serves -- when he is respected by those he serves and is loved by those with whom he serves, then, as is well-nigh indispensable. Thus we shall hold you. Vaya con Dios, Chris!



Dear Roy:

All of us who sign this scroll, and many more besides:

1. Laud you as an always-vigorous crusader for "action on the line", for new and better ways, for the well-being of the common man, and for consideration of the tax-payers' dollar;

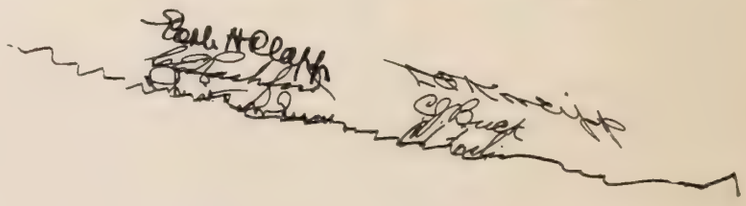
2. Acknowledge the part these qualities, and your counsel and your leadership, have played in producing a pattern of public administration that will last for lo these many years;

3. Confess to having enjoyed our occasional intellectual tilts with you;

4. Regret - selfishly, we admit - your decision to retire;

5. Congratulate you on having won to the freedom of emeritus standing, and ourselves that you and Mrs. Headley plan to stay here in the Nation's capital;

6. And hope - all of us - that we'll be seeing both of you right often as time rolls by.



Dear C. J.:

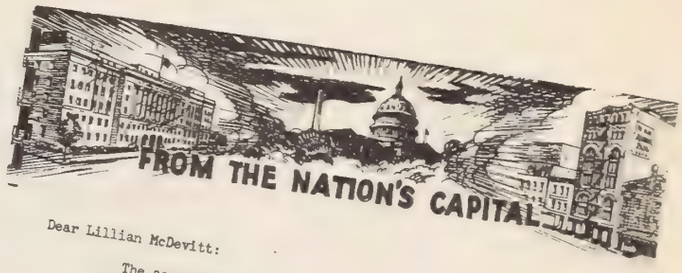
When you hit the old Oregon Trail back to your beloved Pacific Northwest, you will carry with you two particular intangibles. One is the affection and Godspeed of your associates in the Service; the other is the gratitude of the backwoods families whose lot you have striven so diligently to better.

You pioneered for the Service when you were a "new beginner." You pioneered for the underprivileged man back in the hills on the eve of your retirement. And in between, you pioneered a lot of other worth-while movements, too!

C. J., we are going to miss you mightily. We shall miss you at work and at play. We can't break a thirty-seven year tie easily. In fact, we refuse to break it. So proceed to the banks of the Willamette; do those things you most want to do: come back and see us when you can; and please keep your latchstring out for us.

Good luck, Old Timer.

Earle H. Clapp
C. E. Rachford
Roy Headley



Dear Lillian McDevitt:

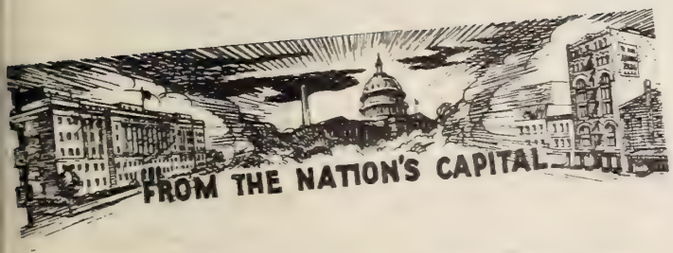
The accomplishments of most organizations are generally credited to top men, but the achievements of the Forest Service through the years represent the combined contributions of many members working together in a united cause.

Your part in the growth and development of the Forest Service has been real and considerable. You helped it "get on its feet" in early years. You were among the first to be sent West to aid in the establishment of our field organization. For nearly two decades you have had charge of our information files, the backbone of our information and public relations work.

We sign this scroll in grateful acknowledgment of your faithful service, devotion to duty, friendly and cooperative spirit, and willingness always to extend a helping hand. We wish you much happiness and remind you that you always will be, as you always have been, a member of our Forest Service "family."

Earle H. Clapp
C. E. Rachford
Fred Morrell
Roy Headley

Miss Lillian M. McDevitt of Information and Education will retire in May after 35 years in the Service.



Dear Mary Latimer:

Congratulations on your years of faithful service in the Forest Service, and best wishes for health and enjoyment in the many years ahead. We know that they will be filled with useful work mingled with well-earned leisure and freedom of time and movement.

You should be proud and happy remembering the part you played in the early, formative days of the Service - the hospitality and friendship shown to the newcomers, many fresh from classrooms, who would have been lonely indeed had you and your sister Fannie not taken them under your wings. Many of those young people of the pioneer days have since become important, integral parts of the Conservation movement, and all remember you with gratitude and sincere friendship. The activity, interest, enthusiasm and devotion to the Forest Service you evidenced in the early days were continued through all the later years.

Your share in the office work has been of vital importance and has been well and faithfully done. You will be missed both officially and personally by your co-workers. May you continue to feel that you are a part of the Forest Service and retain your interest in it.

It certainly will seem strange not to have you with us each day. We don't like this prospect, and we shall miss you greatly. But our loss will be your gain.

Earle H. Clapp
Roy Headley
C. E. Rachford
J. W. Mohrenweiser
J. Buck

Miss Mary R. Latimer of Engineering will retire in May, after 41 years in the Service.

(Photo. by W. H. Shaffer, W.O.)

W.O. ARTIST WINS POSTER CONTEST

Washington, D. C., learned recently what the Forest Service has long recognized; namely, that in one of our own group we have an outstanding illustrator -- Rudolph Wendelin. "Rudy" won the first prize in a "Salvage for Victory" poster contest sponsored by "The Washington Post" and the District Salvage Committee. His reward was a $50 defense bond. The prize-winning poster will be reproduced and displayed with other entries at various places in the city. "Rudy" has been artist-draftsman in the Washington Office for the past 5 years, following his transfer from R-9.

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AN IDEAL FOREST SERVICE OFFICER

On January 15 a small group of his family and friends said good-bye to Paul G Redington at a beautiful service in Falls Church, Virginia. Red would hav admired to see what a number of his old-time friends turned out to see him off- Arthur Ringland, "Dolly" Smith, Roy Headley, Chris Rachford, Dave Godwin, Ovi Butler, Fred Morrell, Nick Carter, Quincy Craft, and myself among others.

Red was one of the best of the old timers. No one ever had a greater zest fo the life of a forester than he. The happiest (and perhaps the most useful period of his life was when he was Supervisor of the old Sierra. When he fork ed his long legs over that gray Queen mare of his and got the pack on old Dan he was not only a fine figure of a man, he was the ideal old time Fores Service officer--a leader in the whole community, an efficient but sympatheti boss, a technician that knew his job and a grand man to be in the woods with

We don't have to mourn for Red. We can think of him as sitting around a celes tial campfire with Overton Price, Fritz Olmsted, Dick Fisher, Bill Hodge Smith Riley, Smoothie Sherman, Bill Durbin, Gus Silcox, Bennie Benedict, Alla Patterson and Dorrance Bronson and giving them the news of those of us wh hang on down here and swap exceedingly amusing stories about things that hap pened in the early days of the Service. I almost wish I were there.

-- Coert duBois (G. P.'s. Class of 1900)
Caribbean Office, Department of State,
in "California Ranger" R-5

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At his own request, Mr. Redington was cremated and his ashes deposited on the top of Shuteye Peak in the Sierra National Forest, under a plain stone marke with the line from Stevenson's requiem, "Here he lies where he longed to be."

REPORTING THE REAL U. S. AT WAR

By Frank A. Connolly, I&E, Region 7

In the New Hampshire North Country, the Forest Service has been looked upon for years with much the same reliance as are the monks of the St. Bernard Pass. Seldom an emergency occurs in the famed White Mountain area but the public, resident or transient, looks to the Forest Ranger or others of the National Forest personnel as the dependable "first line of aid." An avalanche, call the District Ranger. A hurricane; the forestry boys will be here soon to help us out. Skier injured on Mt. Washington; woman lost along Tuckerman Trail; child wandered into the forest -- call the Ranger!

Others help in these great acts of human mercy. Frequently they are the first to get there and render aid. It just isn't in the blood of North Country men to stand idle when a call for help is heard. But the Ranger, backed by the trained support of a far-flung, experienced National Forest organization, is frequently the most effective person when it is necessary to combine woodscraft and high country lore with arduous, prolonged and organized service for the relief of tragic situations. For this reason, even a disaster doesn't seem to be official until the Forest Service has rendered its measure of aid.

Such an incident occurred during the winter; in this case, a tragedy. A U. S. Army bomber, with its seven-man crew, crashed into the side of Mt. Watermomee in the rugged Mt. Moosilauke area, not far from the Great Stone Face in Franconia Notch. Men from the nearby towns of Lincoln and Woodstock responded at first news of the disaster. As soon as effective crews could be gathered, two Rangers from adjoining districts with two woodswise officials of the Parker-Young Company, were on the trail with the necessary supporting forces. The impression got abroad in some quarters that the Rangers had performed some miraculous feat in locating the wrecked plane in wild mountain country. With commendable and deflating factuality, Ranger Kinney, in his next regular "Ranger's Column" for the newspapers in his district, used this circumstance as the occasion for reciting exactly what happened on the night of the disaster.

It makes interesting reading in itself. It would make particularly worthwhile reading for that headline-following element among us which wants all of its heroics served up a la Superman and has had little experience with the often arduous and detailed efforts through which many of the most genuinely heroic services are worked out by men able, trained, and willing to cooperate in a common effort.

Ranger Kinney dedicated his column to "the men in the wrecked Army bomber on Mt. Watermomee and those unselfish men of Lincoln and North Woodstock who saved the lives of those fliers who survived the crash and fire." He reported with refreshing simplicity how Forest Service personnel and equipment, including radio, were coordinated in the successful rescue of the survivors and the protection of Government property, concluding with a moral of immediate significance: "If there be any who have doubts about the outcome of this war, their fears would have been stilled had they seen

the stamina of our fighting men and the resourcefulness and unselfishness of the noncombatant citizenry."

Despite the handicap of censorship and the ever-increasing volume of war jobs, other District Rangers have been able to continue writing Ranger Columns for local newspapers. These unadorned narratives are what a "Time" editor referred to when he commented, "And here and there, in back pages of the newspapers, little items said eloquently that the U. S. was still the U. S."

A propaganda-conscious people, sometimes skeptical of sensational headlines, finds inspiration in forthright statements of American heroism at home and abroad. As the war continues, every Ranger-Reporter will have ample opportunity to bolster civilian morale with unvarnished reports of activities along the home front.

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PREVENTION AND CONTROL OF DECAY IN NEW BUILDINGS

Conjunctive with the war effort wood structures of all kinds have been mushrooming throughout the country. The possibility that Forest Officers may be called upon for advice bearing on the building of these structures is a good one. For this eventuality as well as for adding to general personal knowledge of good building practices the Laboratory's Technical Note No. 251 incorporates much concisely stated useful information.

Dealing primarily with prevention and control of decay in new wood structures the Technical Note calls for the observance of eight cardinal principles as follows:

1. *Build on a well-drained site.* Avoid marshy locations where the water table is at or near the surface, and do a good job of grading, especially in the case of structures without basements. Make sure drainage is away from and not under the building.

2. *Select only decay-free lumber that is dry, and keep it dry between delivery and installation.* During temporary storage on the building site be sure all lumber is protected from rain or other moisture sources and never pile it directly on the ground. For the parts of the building in which the decay hazard is high, select decay-resistant species, such as baldcypress, cedar, and redwood.

3. *Maintain sanitary conditions with respect to foundation, basement, and masonry.* All wood scrap and debris that might furnish food for fungi should be removed.

4. *To play safe place no untreated wood within 18 inches of the ground.* In warm, humid regions, 18 inches may not be enough. In the colder and drier parts of the country, however, wood may be placed considerably closer to the ground. The 18-inch clearance should always be observed, however, unless ample local experience over a long period has definitely demonstrated that

there is no risk in violating it. Whenever there is uncertainty as to the safety of using unprotected wood the lumber should be thoroughly impregnated with a suitable preservative.

5. *Provide adequate cross ventilation so that no dead air pockets exist* under buildings without basements or when the basements are so damp that exposed woodwork will absorb considerable quantities of moisture from the air. Buildings without basements should be supported on foundations of adequate height with at least 2 square feet of openings per 25 linear feet. The ventilators may be (1) grilled holes left in otherwise solid foundations, (2) latticed brick in brick walls, (3) unenclosed or wood-latticed spaces between supporting masonry piers or between the ends of floor joists above the foundation plate. In cold climates it is desirable to install special vents which may be closed during the winter months to avoid unnecessary cooling of the ground floor. Winter-closed vents should always be opened in the spring. Porches elevated above the ground should be built so as to insure ample circulation of air underneath.

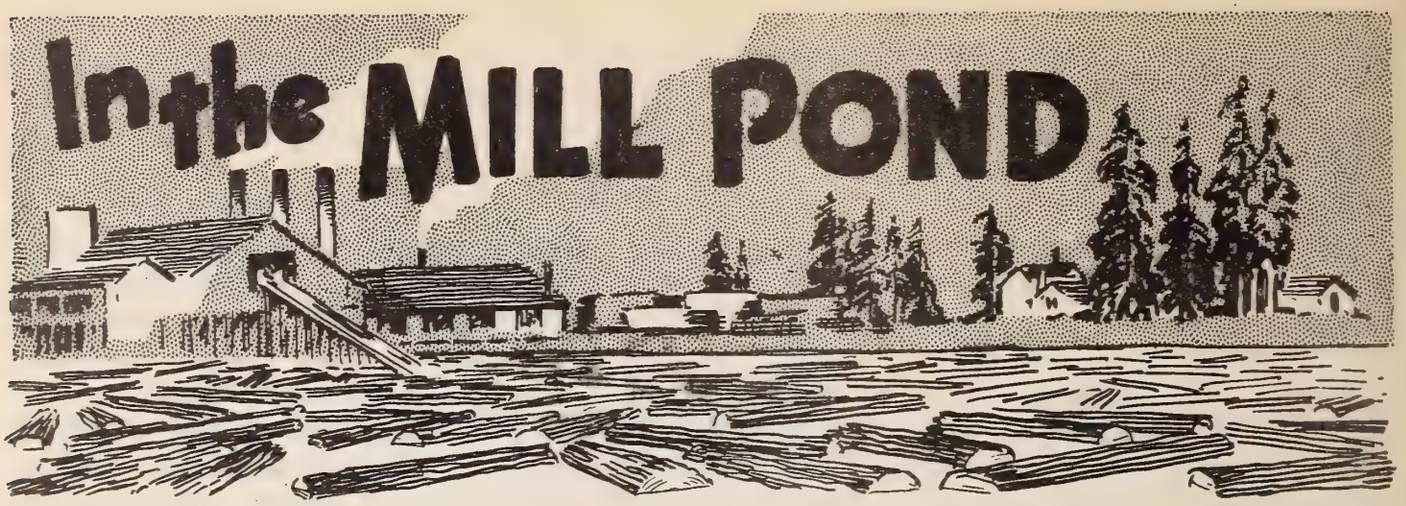
6. *Make all exterior joints tight enough to keep moisture from accumulating* in the adjacent wood. The most critical places are at the corners of the building, and around windows, doors, and porches.

7. *Paint only well-dried wood. Keep exteriors well painted to avoid localized decay.* Moisture is often absorbed through checks in the paint coat.

8. *Avoid the accumulation of moisture condensed from the atmosphere.* The most positive and least expensive method of preventing condensation within the wall structure of new houses is the use of vapor-resistant barriers at or near the inner face of the wall. Among the materials that are highly resistant to the passage of water vapor are: (1) light-weight asphalt roofing materials, (2) asphalt-impregnated and surface-coated sheathing paper, (3) laminated paper made of two or more sheets of kraft paper cemented together with asphalt (30-6-30 grade), and (4) double-faced reflective insulation mounted on paper.

Proceeding from these principles of prevention and control the Technical Note points out that in repairing a building already damaged by decay the primary job is to determine the source of the moisture and remove it. Ordinarily, if adequate ventilation and soil drainage are provided and if all contacts of untreated wood with the soil or moist concrete or masonry are broken, the decayed wood will dry out and decay will stop. In making replacements, however, it is a good plan to cut out at least a foot beyond the rotton area because wood is usually infected beyond the point where the rot is apparent. New, green, untreated lumber should never be nailed against old infected material. If this is done the new wood is exposed to immediate infection, with the result that decay may be much more rapid than it was in the original construction.

Two ways to keep decay fungi from growing in wood are (1) to poison the wood by injecting a preservative into it (surface treatment is not sufficient) and (2) to deprive the fungi of water -- wood kept dry is a permanent building material.



To the Editor, Service Bulletin:

It is with considerable interest that we in Region Ten read the (new) Forest Service Bulletin and with certain pride that we view the cut of the Sun and Raven totem which appears currently on the "Totems" page. Perhaps others less familiar with these unique carvings might be interested in a brief outline of their functions and legends.

The Sun and Raven totem was the first to be repaired by the Alaskan Indians of the CCC under the supervision of the U. S. Forest Service when the project of totem restoration began in 1938. Since then approximately one hundred have been restored and placed in totem parks along the regular routes of steamer travel where visitors to Alaska might enjoy them.

This totem originally marked the grave of a Tlingit Indian of the Raven tribe. It was located on Pennock Island, opposite the town of Ketchikan in Southeastern Alaska, but since being restored has been placed in a totem park in the native village of Saxman, three miles south of Ketchikan. Formerly, the dead were cremated and their ashes, after being put in small cedar boxes, were placed in a niche carved in the back of the pole. Later, following the practices of the whites, the natives buried their dead but continued to mark the graves with totems. Rot-resistant red cedar was always used and men skilled in the art of carving were employed to portray stories of historical significance or legendary events on them.

The legend carved on the Sun and Raven totem tells of the time long ago when all the earth was in darkness and how Raven, the Creator, through trickery, obtained light for the world. It also relates the story of the world flood which the natives say was caused by an argument Raven had with his uncle. Each was trying to prove himself the more powerful so to decide the issue Raven's uncle ordered the tide to rise. Raven then commanded it to stop, which it did, but each succeeding time the uncle would cause it to rise again. Finally, realizing he was bested, Raven flew away and the uncle unable to stop the rising waters which eventually covered the entire earth, was drowned. Sometime later when the water had subsided, Raven returned to the earth where he met a frog who said, "Follow me and I'll show you more of something you've never seen before." Accepting this offer, Raven went along and they both went down underneath the sea. It was while on this journey that Raven gained his knowledge of the various forms of sea life.

The figures on the totem which illustrate this legend are, reading down, as follows: Raven, with halo representing the sun; the three small figures, sons and daughter of the sun; face, Raven's grandmother; the descending Raven and the frog. On either side of the lower Raven's head are three fish representing the sea life which he saw during his journey with the frog.

-- Linn A. Forrest, Recreation and Lands, R-10

(Editor's Note: The term "Totems" and the sketch of the totem pole were selected to distinguish the historical-biographical department of the new Bulletin (1) because the word "totem" refers to a peculiarly characterized group or clan; (2) because the carvings on the pole are symbolic of memorable historical individuals, accomplishments and happenings representative of the clan; and (3) because this means of designation was considered different, colorful, and in keeping. Selection of biographical and historical material for "carving on the pole" is made irrespective of individual position or location. Suggestions and write-ups of Forest Service people, places or projects are invited.)

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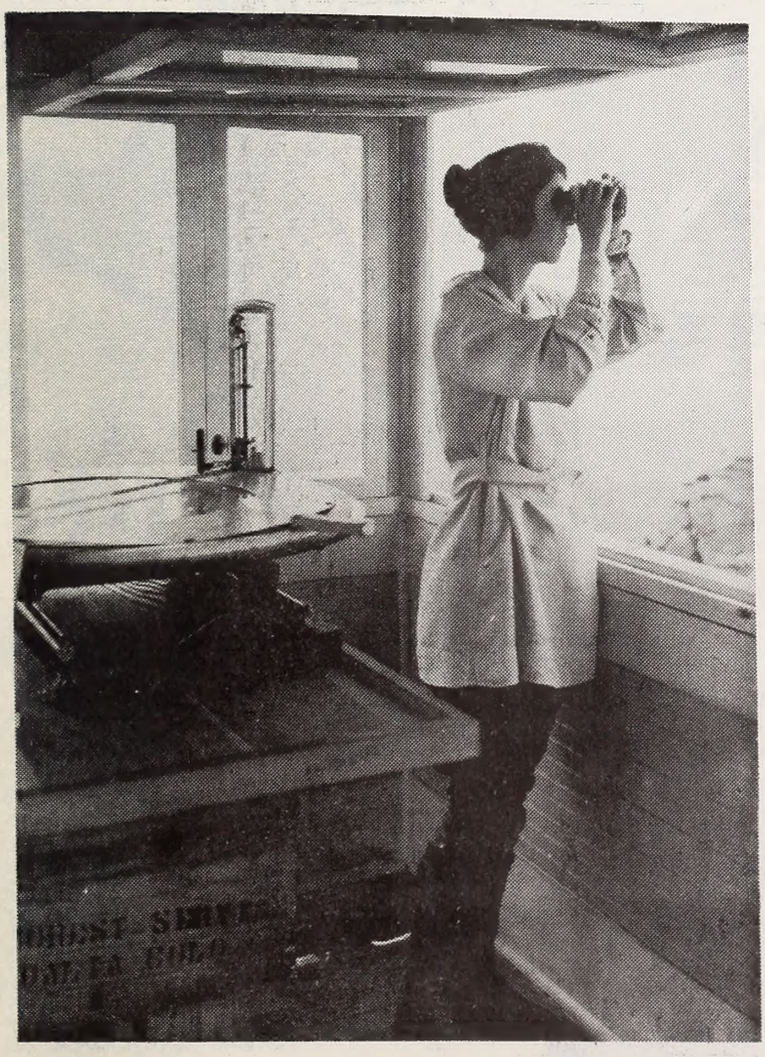
WOMEN PLUG THE GAPS

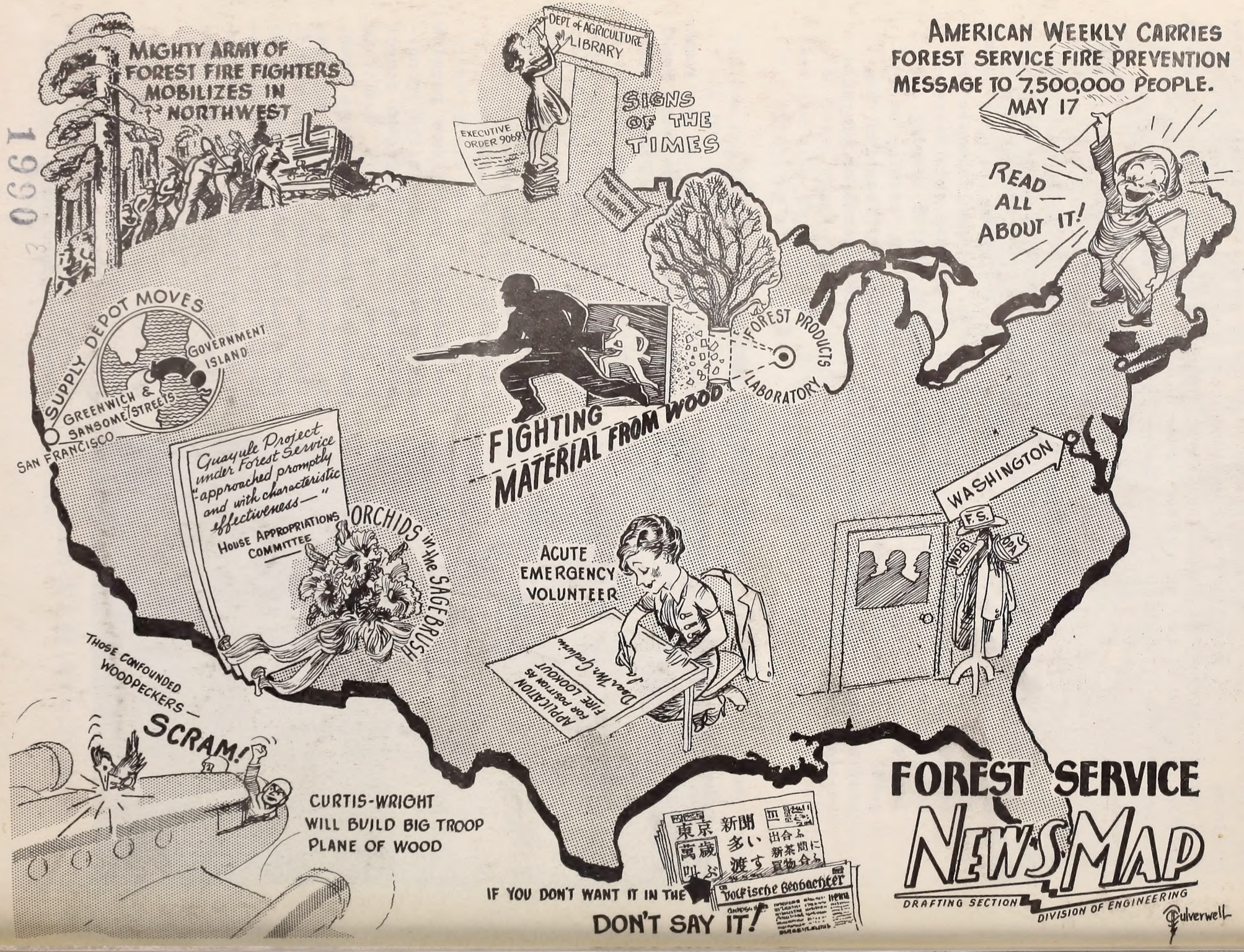


(Photo, No. 42829A, by F. E. Colburn)

Miss Helen Dowe, one of the women Forest workers of the World War I period, "manned" the Pike National Forest's primary fire lookout on Devil's Head for several seasons. Intriguing feature of current personnel adjustments is the extent to which local women will replace men serving in the armed forces or employed in war industries.

Service-wide policy now permits the employment, during war conditions where qualified men cannot be hired, of properly qualified women at lookout stations when, in the opinion of the Regions, they can qualify as local dependent citizens, are not required to go to fires, and special circumstances apply which make the employment of lady lookouts appropriate.

Miss Dowe married John Burgess, one-time R-2 engineer. Mrs. Burgess has retained her interest in forestry and has given many talks about her experiences.


MIGHTY ARMY OF FOREST FIRE FIGHTERS MOBILIZES IN NORTHWEST
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AMERICAN WEEKLY CARRIES FOREST SERVICE FIRE PREVENTION MESSAGE TO 7,500,000 PEOPLE. MAY 17
READ ALL ABOUT IT!
SUPPLY DEPOT MOVES
GOVERNMENT ISLAND
GREENWICH & SANSOME STREETS
SAN FRANCISCO
FOREST PRODUCTS LABORATORY
FIGHTING MATERIAL FROM WOOD
Guayule Project under Forest Service "approached promptly and with characteristic effectiveness—" HOUSE APPROPRIATIONS COMMITTEE
ORCHIDS in the SAGEBRUSH
ACUTE EMERGENCY VOLUNTEER
APPLICATION FOR POSITION AS FIRE LOOKOUT
WASHINGTON
F.S.
WPB
WAR
THOSE CONFOUNDED WOODPECKERS—
SCRAM!
CURTIS-WRIGHT WILL BUILD BIG TROOP PLANE OF WOOD
IF YOU DON'T WANT IT IN THE
Volkische Beobachter
DON'T SAY IT!
FOREST SERVICE
NEWS MAP
DRAFTING SECTION
DIVISION OF ENGINEERING
Culverwell